


JAPAN INTERNATIONAL COOPERATION AGENCY
REPUBLIC OF TUNISIA

THE FEASIBILITY STUDY
ON
THE IRRIGATED AREA IMPROVEMENT
IN
OASIS
IN
THE SOUTH OF THE REPUBLIC OF TUNISIA

VOLUME III
FINAL REPORT
(DRAWINGS)

AUGUST, 1996

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SANYU CONSULTANTS INC.
NIPPON KOEI CO., LTD

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VOLUME III

DRAWINGS

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List of sample survey in four(4) governorate

(1) Gafsa Governorate

Cord No.	Name of Oasis	Planned Area(ha)	No. of Sample	Sample Area(ha)	Sample A./Planned A.(%)
GF- 1	Kasba	698	4	46.320	6.6
GF- 2	Sud Ouest	703	3	41.750	5.9
GF- 3	El Guettar	450	1	46.400	10.3
GF- 4	Lalla	700	4	46.030	6.6
GF- 5	El Ksar	578	3	44.620	7.7
GF- 6	Oued Shili	56	1	4.620	8.3
GF- 7	Thelja	65	1	2.560	3.9
GF- 8	Segdoud	217	2	15.360	7.1
	Total/Average	3,467	19	247.660	7.1

(2) Tozeur Governorate

Cord No.	Name of Oasis	Planned Area(ha)	No. of Sample	Sample Area(ha)	Sample A./Planned A.(%)
TZ- 1	Tozeur	929	5	24.390	2.6
TZ- 2	Kastilia	50	1	3.200	6.4
TZ- 3	Oued El Koucha	62	1	4.000	6.5
TZ- 4	Neflayette	72	1	5.400	7.5
TZ- 5	Chemsa	90	1	5.920	6.6
TZ- 6	Helba Est	75	1	4.950	6.6
TZ- 7	Helba Ouest	50	1	4.095	8.2
TZ- 8	Jhim 1	40	1	8.000	20.0
TZ- 9	Jhim 2	167	1	6.000	3.6
TZ- 10	Ibn Chabbat 3 (*)	325	1	9.600	3.0
TZ- 11	Nefta	852	4	26.388	3.1
TZ- 12	Ghardgaya	40	1	4.725	11.8
TZ- 13	Ibn Chabbat 1 (*)	240	1	6.810	2.8
TZ- 14	Ibn Chabbat 2 (*)	272	1	7.470	2.7
TZ- 15	Draa Sud	198	2	10.850	5.5
TZ- 16	Hazoua 1	72	2	6.645	9.2
TZ- 17	Hazoua 2	48	2	4.030	8.4
TZ- 18	Hazoua 3	238	4	19.346	8.1
TZ- 19	Oued Loghrissi	78	1	4.100	5.3
TZ- 20	Tazrarit	48	1	4.340	9.0
TZ- 21	Cedada	55	1	4.250	7.7
TZ- 22	Dghoumes	104	2	6.320	6.1
TZ- 23	Degache	822	3	26.500	3.2
TZ- 24	Chaknou	90	1	7.700	8.6
TZ- 25	El Hamma	400	2	9.900	2.5
TZ- 26	Tamerza	80	1	6.680	8.4
TZ- 27	Chebika	23	1	1.380	6.0
TZ- 28	Foum El khanga	48	1	1.380	2.9
TZ- 29	Mides	29	1	2.500	8.6
TZ- 30	Ain El Karma	25	1	1.910	7.6
	Total/Average	5,622	47	238.779	4.2

(3) Kebili Governorate

Cord No.	Name of Oasis	Planned Area(ha)	No. of Sample	Sample Area(ha)	Sample A./Planned A.(%)
KB- 1	Bechri	162	1	4.480	2.8
KB- 2	Bouabdallah	270	2	16.510	6.1
KB- 3	Fatnassa	205	2	12.260	6.0
KB- 4	El Gliaa	94	1	6.550	7.0
KB- 5	Menchia	140	1	9.240	6.6
KB- 6	Nagga	181	2	9.940	5.5
KB- 7	Oum Soma	162	1	10.010	6.2
KB- 8	Oued Zira	176	1	9.600	5.5
KB- 9	Ouled Touati	62	1	5.720	9.2
KB- 10	Tenchig	54	1	3.520	6.5
KB- 11	Zaouiet El Anes	125	1	5.060	4.0
KB- 12	Zaouiet El Harth	81	1	8.870	11.0
KB- 13	Ziret Louhichi	86	1	5.100	5.9
KB- 14	Chouchet Nagga	26	1	2.000	7.7
KB- 15	Guataya	150	2	9.540	6.4
KB- 16	Jedida	133	1	10.500	7.9
KB- 17	Mansoura	86	2	4.100	4.8
KB- 18	Rabta	162	2	9.470	5.8
KB- 19	Telmine	240	2	14.140	5.9
KB- 20	Tembib	118	1	7.070	6.0
KB- 21	Tombar	127	2	4.400	3.5
KB- 22	Limagues	57	1	3.270	5.7
KB- 23	Mazraa Neji	66	1	3.000	4.5
KB- 24	Oum El Farth let2	55	1	6.840	12.4
KB- 25	Stiftimi	82	1	3.600	4.4
KB- 26	Saidane	30	1	2.000	6.7
KB- 27	Barghouthia	52	1	6.230	12.0
KB- 28	Bazma	146	2	9.480	6.5
KB- 29	B'chelli	135	3	8.060	6.0
KB- 30	Blidette	75	1	4.530	6.0
KB- 31	Zarcine	70	1	5.500	7.9
KB- 32	Jemna	112	1	6.640	5.9
KB- 33	Mtouria	81	1	6.260	7.7
KB- 34	Msaid	95	1	6.106	6.4
KB- 35	Rahmat	85	1	4.310	5.1
KB- 36	Ras El Ain	268	2	15.010	5.6
KB- 37	Souk El Baiez	65	1	3.890	6.0
KB- 38	Ben Zitoun let2	147	2	7.390	5.0
KB- 39	Bourzine	94	2	6.440	6.9
KB- 40	Cueliada	103	1	6.960	6.8
KB- 41	Kelwamen	47	1	2.060	4.4
KB- 42	Klibia	92	1	5.050	5.5
KB- 43	Sidi Hamed	100	1	7.890	7.9
KB- 44	Atilet	220	3	16.100	7.3
KB- 45	Douz	280	3	14.830	5.3
KB- 46	El Ghoula (*)	75	1	4.710	6.3
KB- 47	El Golaa (*)	65	1	2.350	3.6
KB- 48	Grad (*)	111	1	6.980	6.3
KB- 49	El H'say	90	1	5.700	6.3
KB- 50	Nouiel	97	1	6.720	6.9

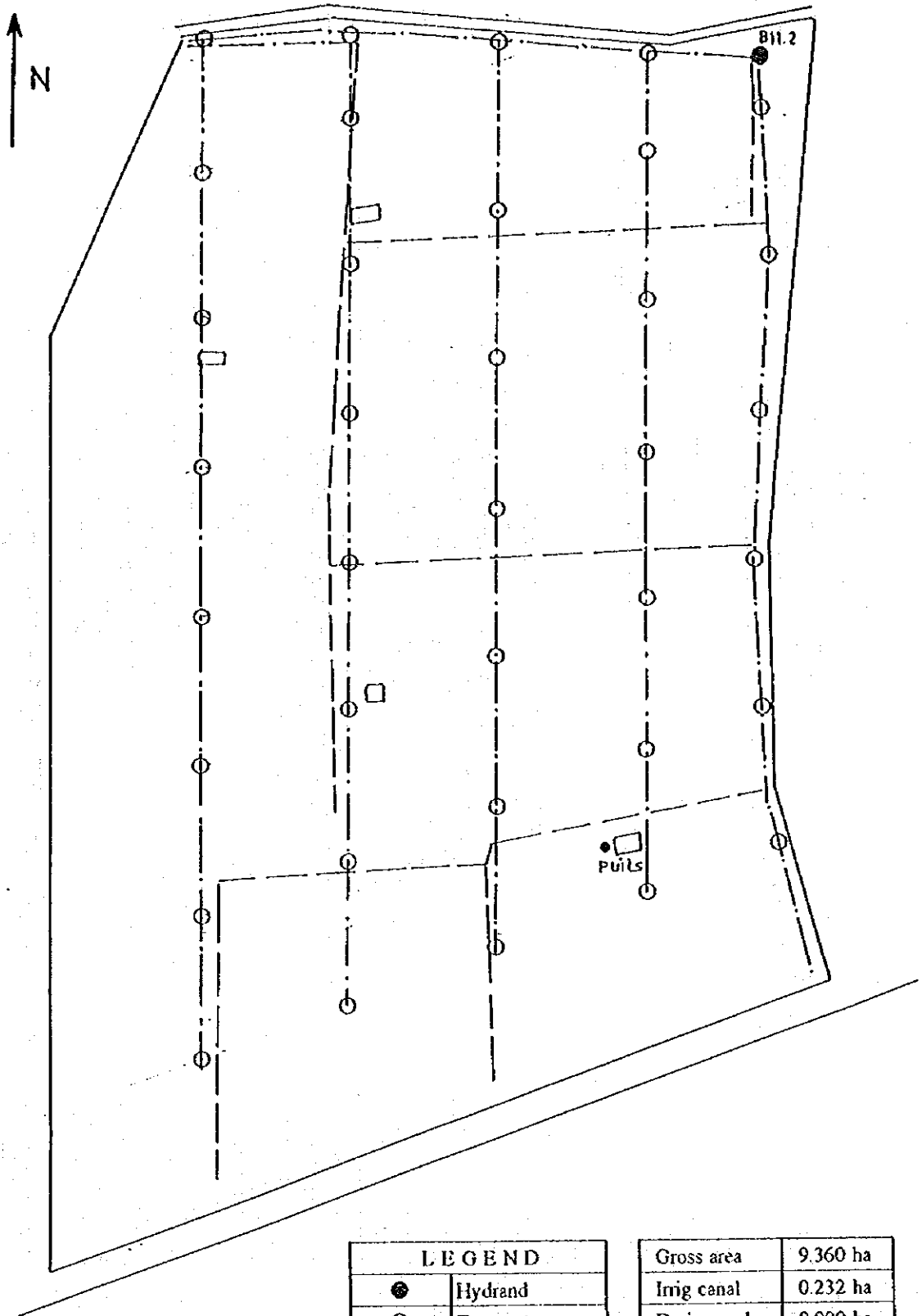
KB- 51	Zaafrane	101	1	4.620	4.6
KB- 52	Bouhamza	80	1	6.200	7.8
KB- 53	Ksar Ghilane	100	1	5.200	5.2
KB- 54	Sakkouma (*)	80	1	4.110	5.1
KB- 55	Tarfaya (*)	77	1	4.620	6.0
KB- 56	Dhomrana	45	1	2.200	4.9
KB- 57	Smida	64	1	4.700	7.3
KB- 58	Ghidma	80	1	4.580	5.7
KB- 59	Sabria	60	1	3.000	5.0
KB- 60	El Faouar 1	87	1	6.840	7.9
KB- 61	El Faouar 2	80	1	6.650	8.3
KB- 62	Bechni	100	2	8.630	8.6
KB- 63	Dargine (*)	72	1	4.730	6.6
KB- 64	Matrouha	100	1	4.000	4.0
KB- 65	Regim Maatoug 1	104	1	4.000	3.8
KB- 66	Regim Maatoug 2	96	1	6.000	6.3
KB- 67	Tarfayet Elma	52	1	2.050	3.9
	Total/Average	7,213	86	438.116	6.1

(4) Gabes Governorate

Cord No.	Name of Oasis	Planned Area(ha)	No. of Sample	Sample Area(ha)	Sample A./Planned A.(%)
GB- 1	Ain Zrig	140	2	8.840	6.3
GB- 2	Temoula 1	40	1	3.220	8.1
GB- 3	Temoula 2	20	1	1.080	5.4
GB- 4	Zrig Dakhlania	30	1	2.230	7.4
GB- 5	Teboulbou	520	4	36.090	6.9
GB- 6	Oasis de Gabes	734	6	49.600	6.8
GB- 7	Limaoua 1 et 2	148	3	13.850	9.4
GB- 8	M'dou	40	1	4.070	10.2
GB- 9	Chott El Ferik	31	1	4.570	14.7
GB- 10	Bouchamma	143	1	9.380	6.6
GB- 11	Mahjoub	374	5	24.390	6.5
GB- 12	Salem	99	1	8.250	8.3
GB- 13	Sboui	72	1	4.240	5.9
GB- 14	Faycal	260	3	14.950	5.8
GB- 15	M'ziraa Ghannouch	280	2	18.330	6.5
GB- 16	Methouia	268	3	14.080	5.3
GB- 17	Ouedhref	263	3	13.910	5.3
GB- 18	Aouinette	232	2	17.940	7.7
GB- 19	Chenchou 1	57	1	4.000	7.0
GB- 20	Chenchou 2	40	1	3.970	9.9
GB- 21	Tekouri	32	1	1.700	5.3
GB- 22	Hamma Oasis	400	5	19.440	4.9
GB- 23	Mziraa Hamma	80	2	6.660	8.3
GB- 24	Bechima 1	280	2	15.420	5.5
GB- 25	Bechima 2	290	1	16.050	5.5
GB- 26	Khebayet	96	1	6.660	6.9
GB- 27	Ben Ghilouf	180	2	10.330	5.7
GB- 28	Glib Dokhane	70	1	5.420	7.7
GB- 29	Oued Nekhla	30	1	2.420	8.1
GB- 30	Arram	163	1	11.210	6.9
GB- 31	Mareth 1	100	2	5.920	5.9
GB- 32	Mareth 2	180	2	9.290	5.2
GB- 33	Mareth 3	30	1	2.250	7.5
GB- 34	Mareth 5	115	1	6.620	5.8
GB- 35	Mareth 6	88	1	5.000	5.7
GB- 36	Zarat 2	174	1	6.040	3.5
GB- 37	Zerkine 1 et 3	116	1	6.480	5.6
GB- 38	Zerkine 2	156	1	6.240	4.0
GB- 39	Ayoune Zerkine	30	1	2.490	8.3
GB- 40	Madssia(+)	58	1	3.380	5.8
GB- 41	Kettana 1	98	1	7.000	7.1
GB- 42	Kettana 3	140	2	8.420	6.0
GB- 43	Kettana 4	125	1	6.610	5.3
GB- 44	Sidi Sellam	120	1	6.870	5.7
GB- 45	Zrig Barrania	71	1	4.760	6.7
GB- 46	Ghandri	30	1	3.300	11.0
GB- 47	Laaradh 1	35	1	2.320	6.6
GB- 48	Laaradh 3	55	1	2.380	4.3
	Total/Average	7,133	81	447.670	6.3

**(1) IMPROVEMENT PLAN OF IRRIGATION AND DRAINAGE FACILITIES
IN GAFSA GOVERNORATE**

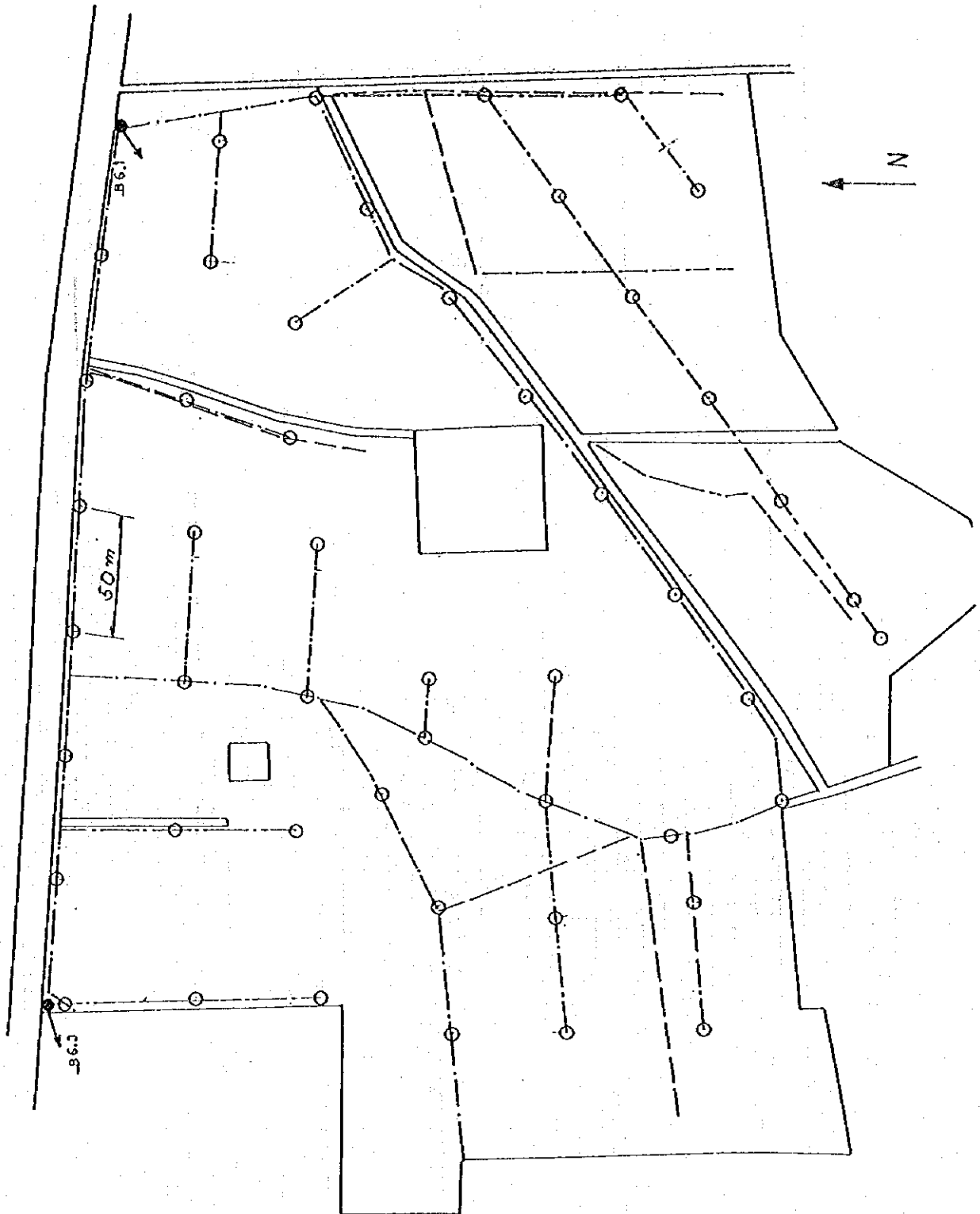
KASBA (1)



LEGEND	
●	Hydrant
○	Turn-out
- - - - -	Concrete Canal
- · - · - ·	Pipe Line
- - - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	9.360 ha
Irrig canal	0.232 ha
Drain canal	0.000 ha
Road	0.226 ha
Others	0.024 ha
Net area	8.880 ha
Ratio	0.95

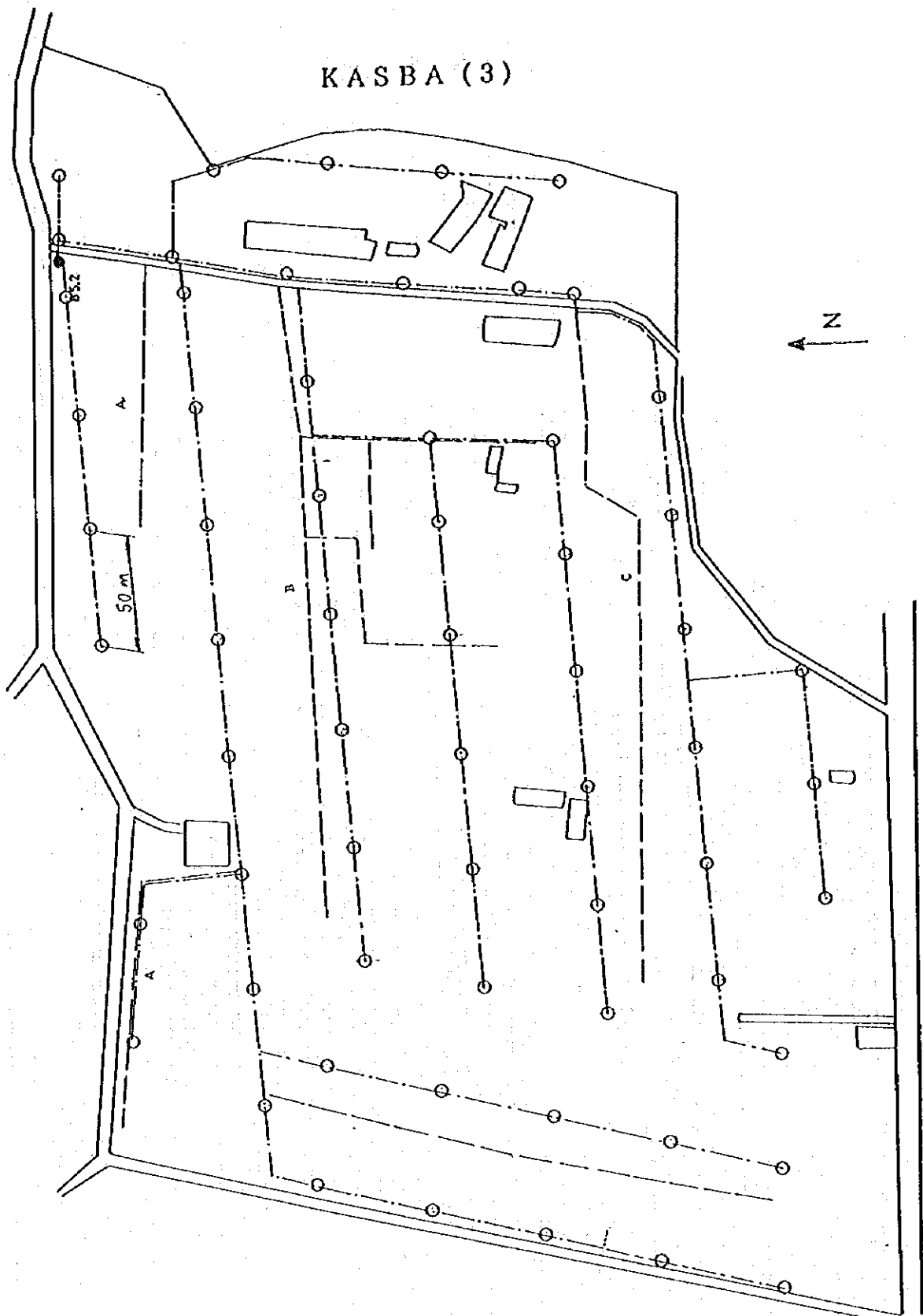
# KASBA (2)



LEGEND	
●	Hydrant
○	Turn-out
- - - - -	Concrete Canal
· · · · ·	Pipe Line
- · - · -	Earth Canal
~ ~ ~ ~ ~	Drainage Canal

Gross area	15.160 ha
Irig canal	0.262 ha
Drain canal	0.000 ha
Road	0.476 ha
Others	0.272 ha
Net area	14.149 ha
Ratio	0.930

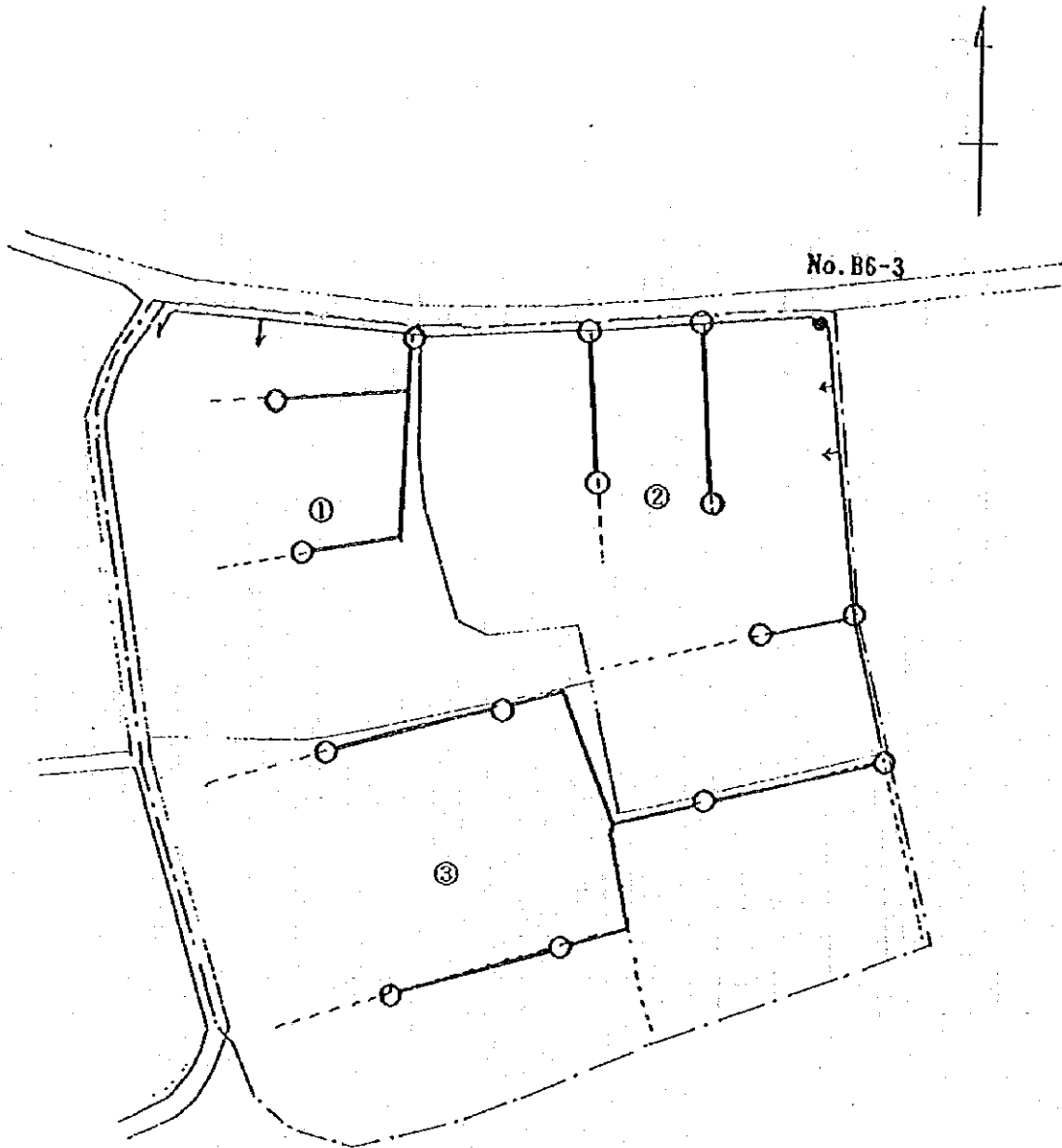
# KASBA (3)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	17.400 ha
Irig canal	0.264 ha
Drain canal	0.000 ha
Road	0.102 ha
Others	0.260 ha
Net area	16.770 ha
Ratio	0.960

KASBA (4)

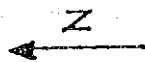
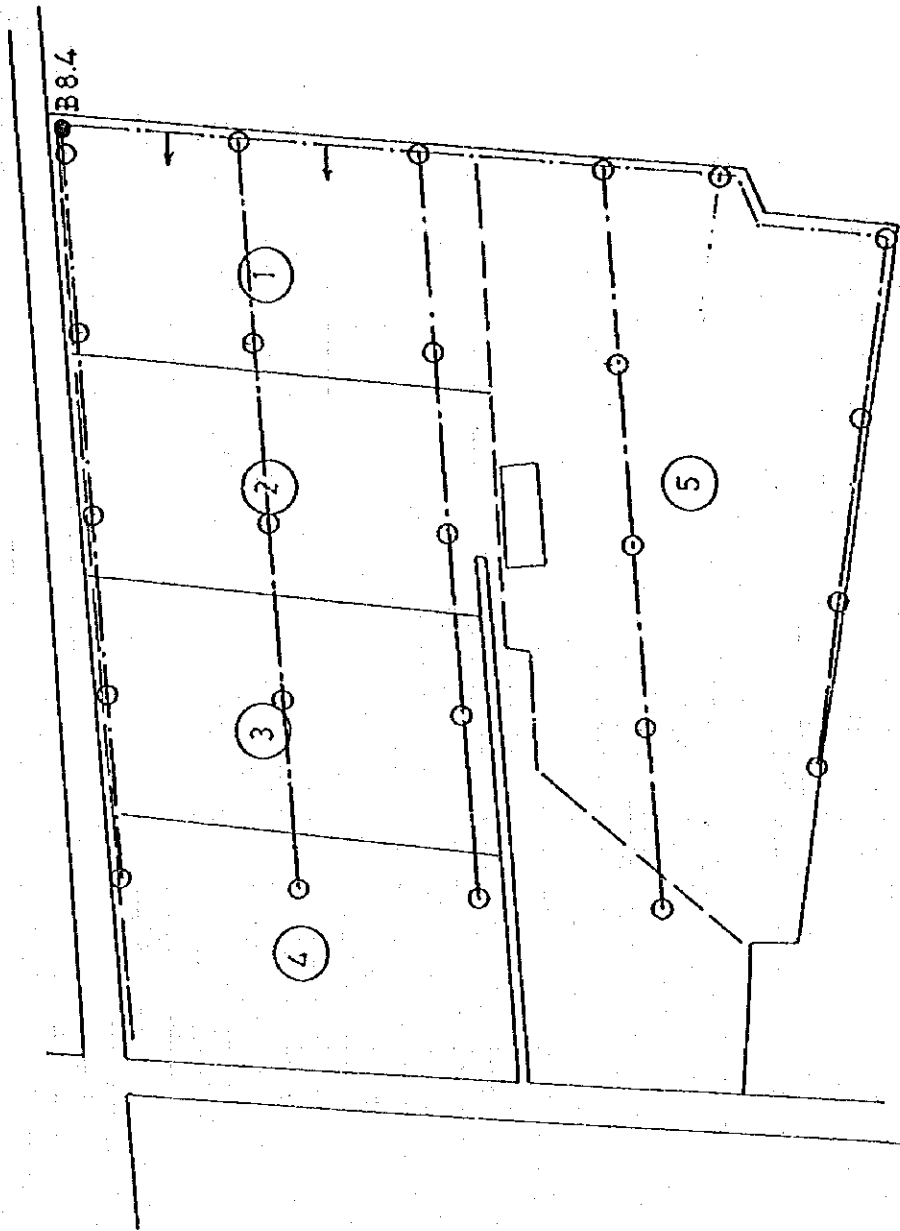


LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- . - . - .	Earth Canal
~~~~~	Drainage Canal

Gross area	4.400 ha
Irrig canal	0.140 ha
Drain canal	0.000 ha
Road	0.020 ha
Others	0.000 ha
Net area	4.240 ha
Ratio	0.960



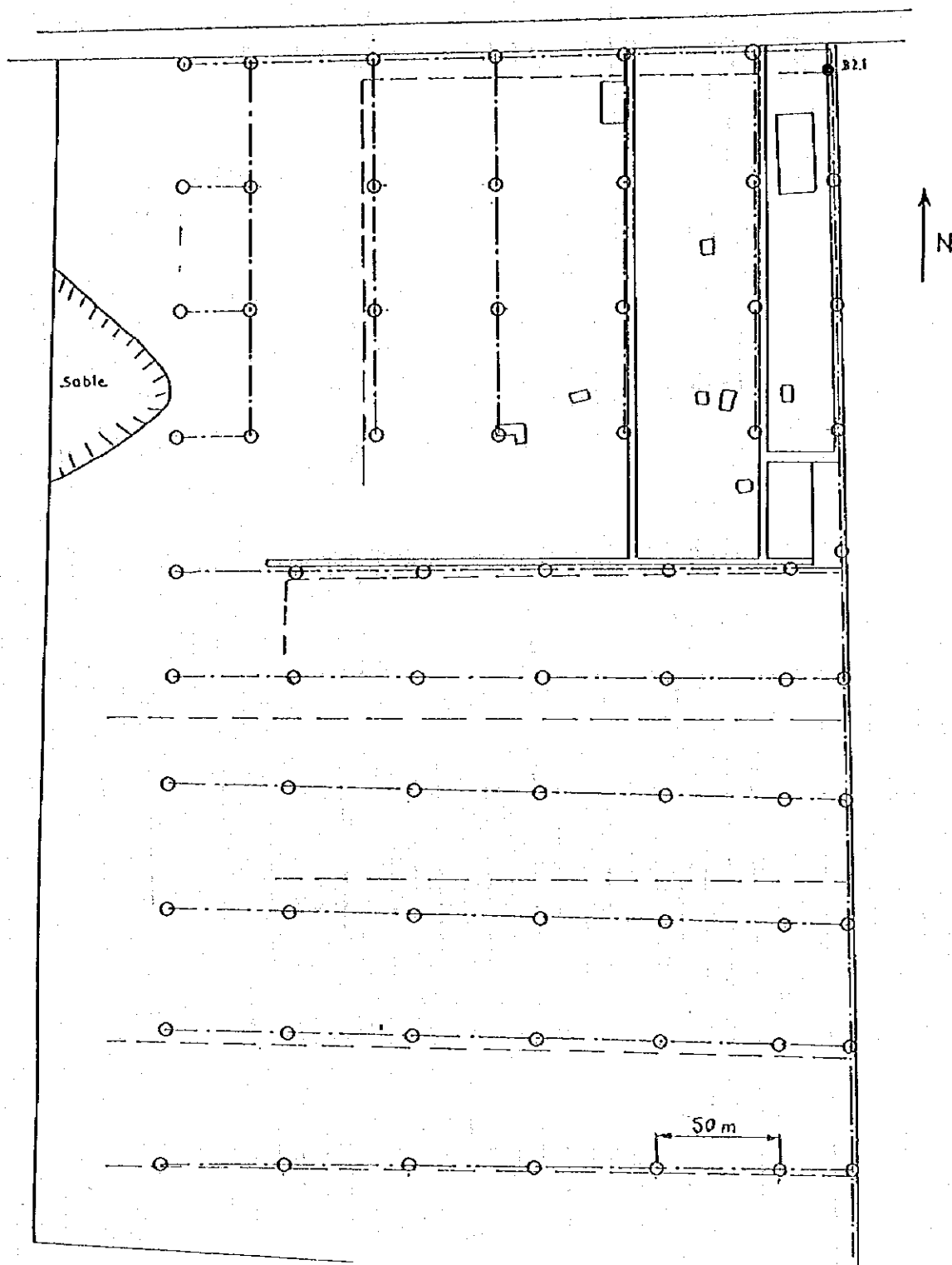
# SUD-OUEST (1)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	5.640 ha
Irig canal	0.137 ha
Drain canal	0.000 ha
Road	0.225 ha
Others	0.300 ha
Net area	5.248 ha
Ratio	0.930

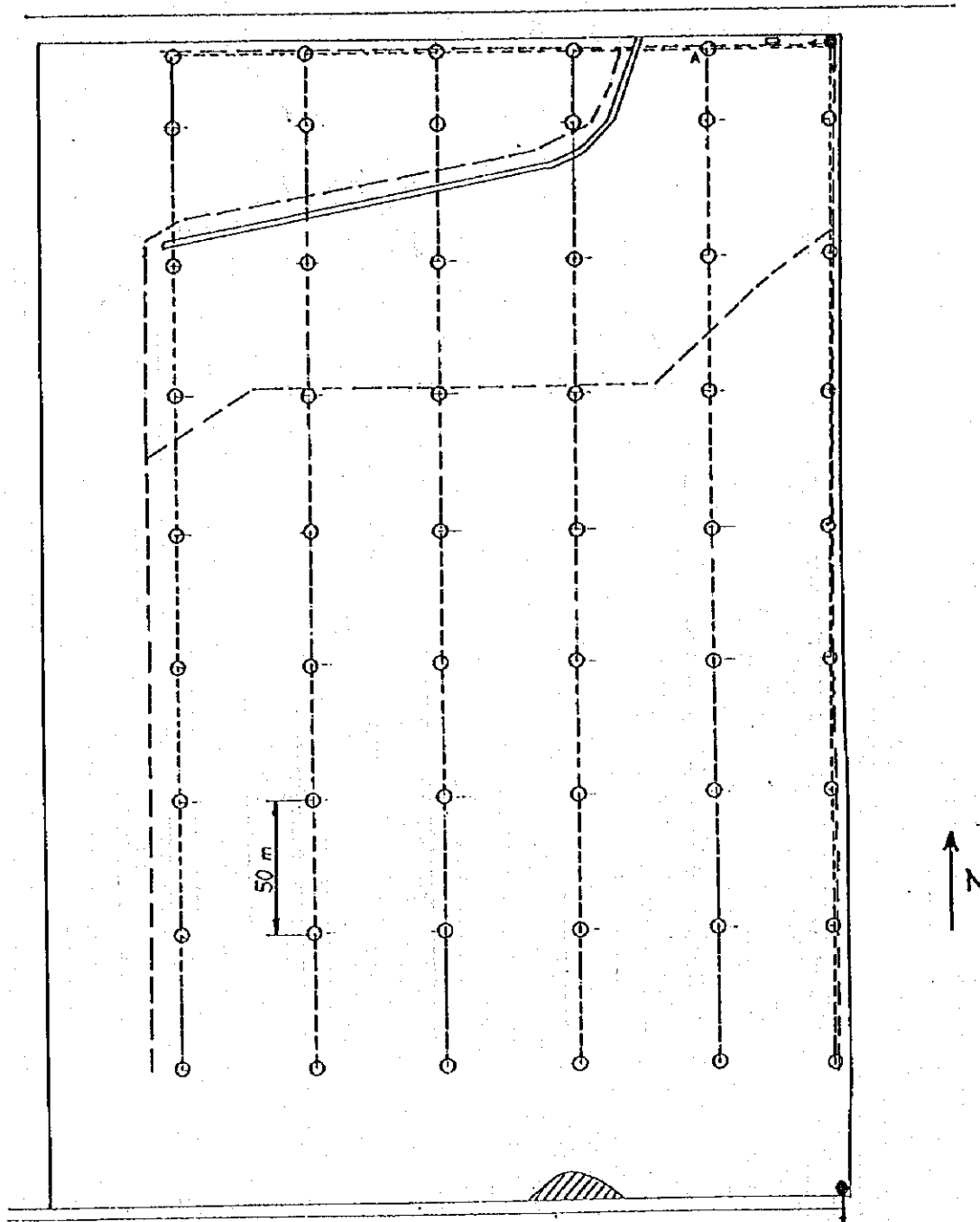
SUD-OUEST (2)



LEGEND	
●	Hydrant
○	Turn-out
— · — · — ·	Concrete Canal
— · — · — ·	Pipe Line
— — — —	Earth Canal
~~~~~	Drainage Canal

Gross area	16.170 ha
Irig canal	0.366 ha
Drain canal	0.000 ha
Road	0.367 ha
Others	0.428 ha
Net area	15.010 ha
Ratio	0.930

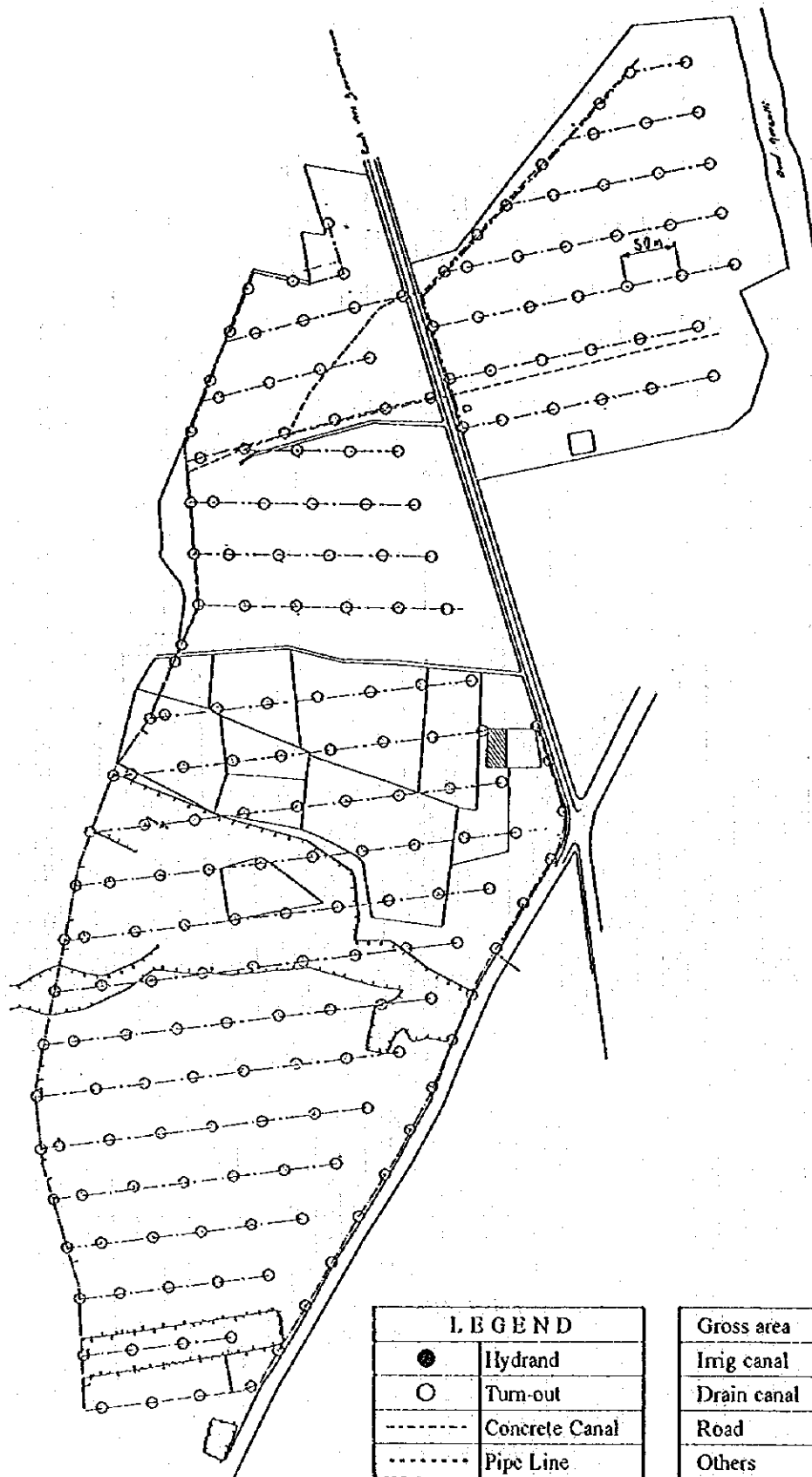
# SUD-OUEST (3)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	19.940 ha
Irrig canal	0.213 ha
Drain canal	0.000 ha
Road	0.296 ha
Others	0.036 ha
Net area	14.395 ha
Ratio	0.960

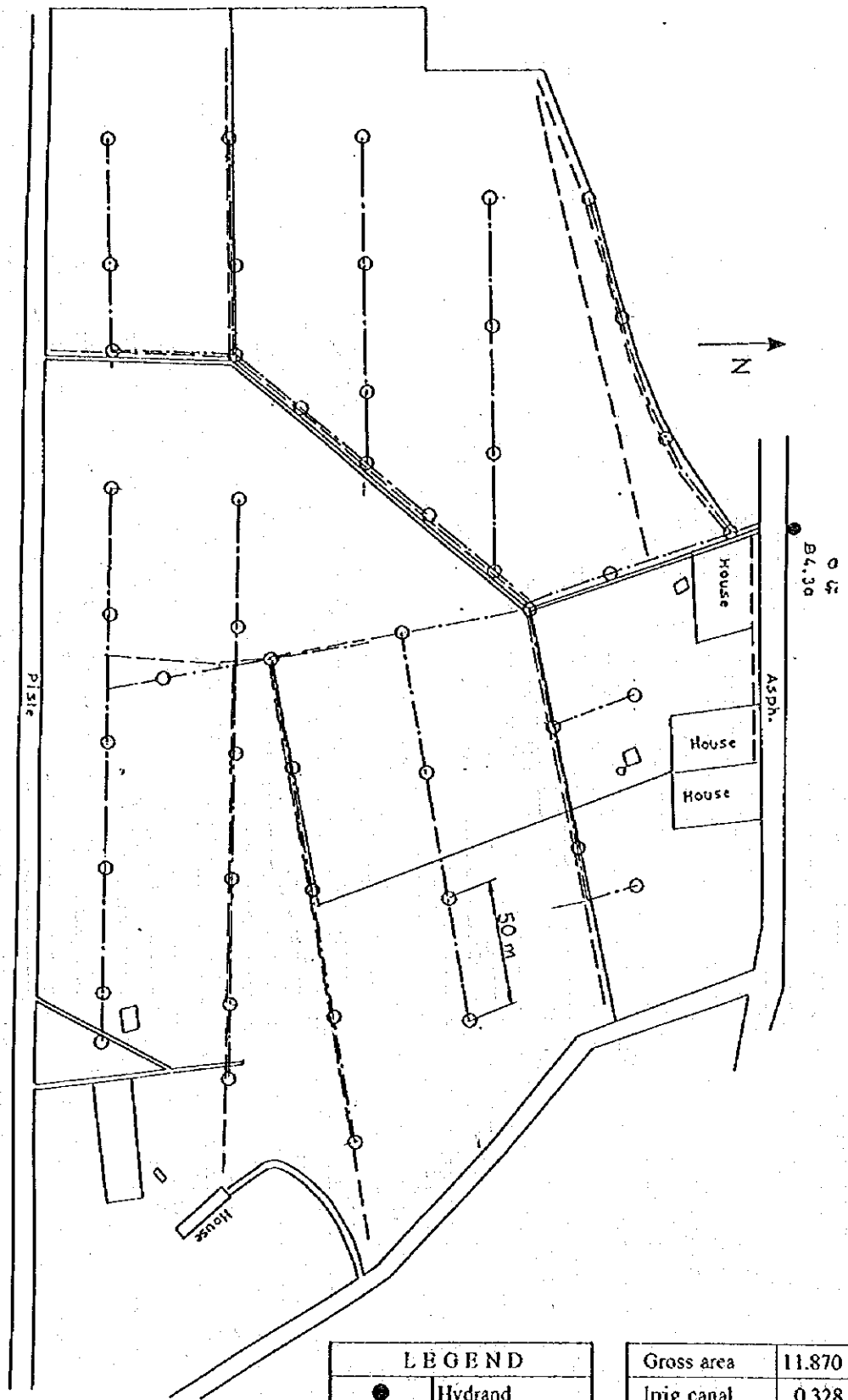
EL GUETTAR



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
---	Earth Canal
~~~~~	Drainage Canal

Gross area	46.400 ha
Irig canal	0.362 ha
Drain canal	0.000 ha
Road	1.360 ha
Others	0.542 ha
Net area	44.136 ha
Ratio	0.951

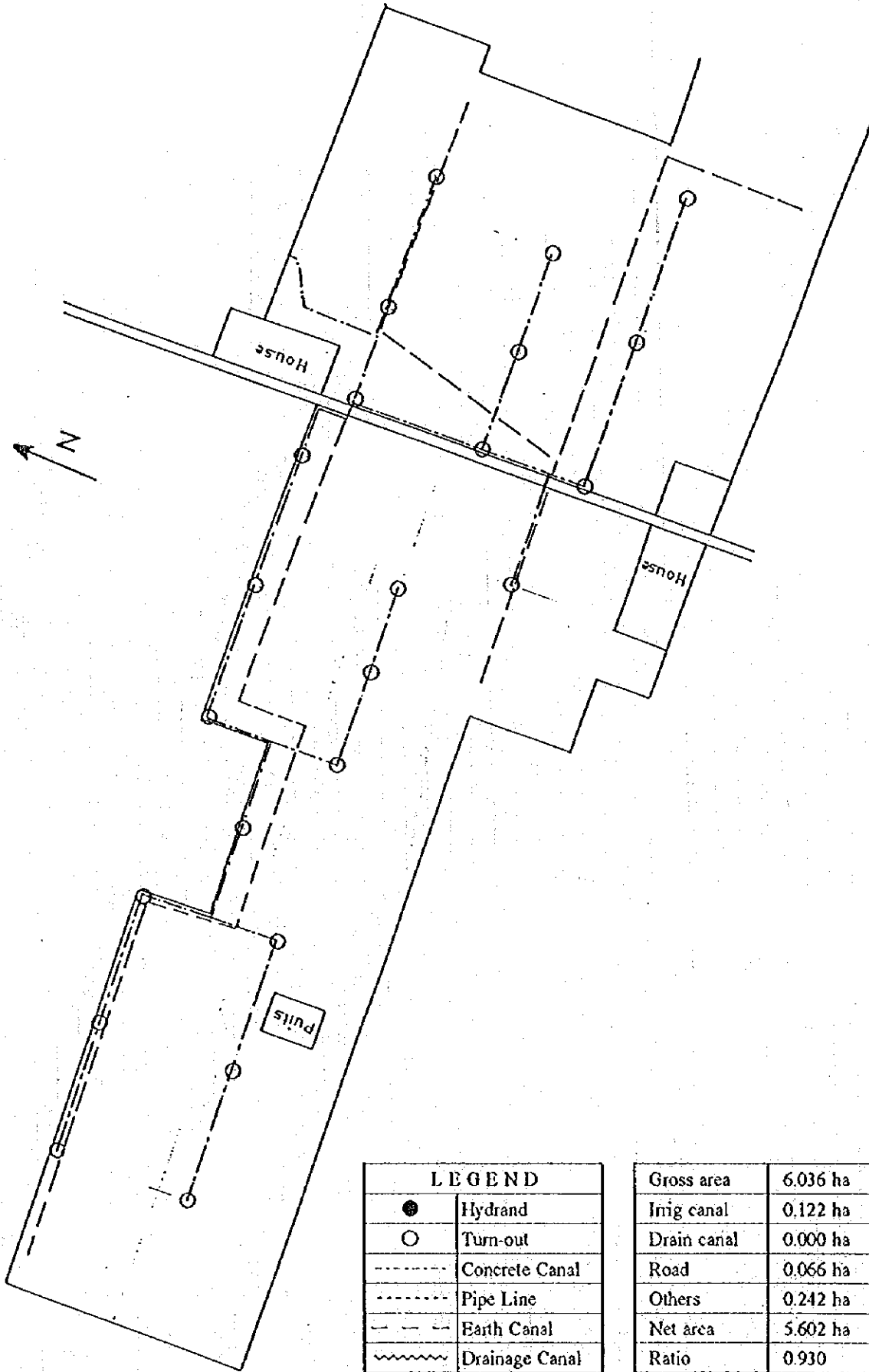
# LALLA (1)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	11.870 ha
Irig canal	0.328 ha
Drain canal	0.000 ha
Road	0.452 ha
Others	0.340 ha
Net area	10.749 ha
Ratio	0.910

LALLA (2)

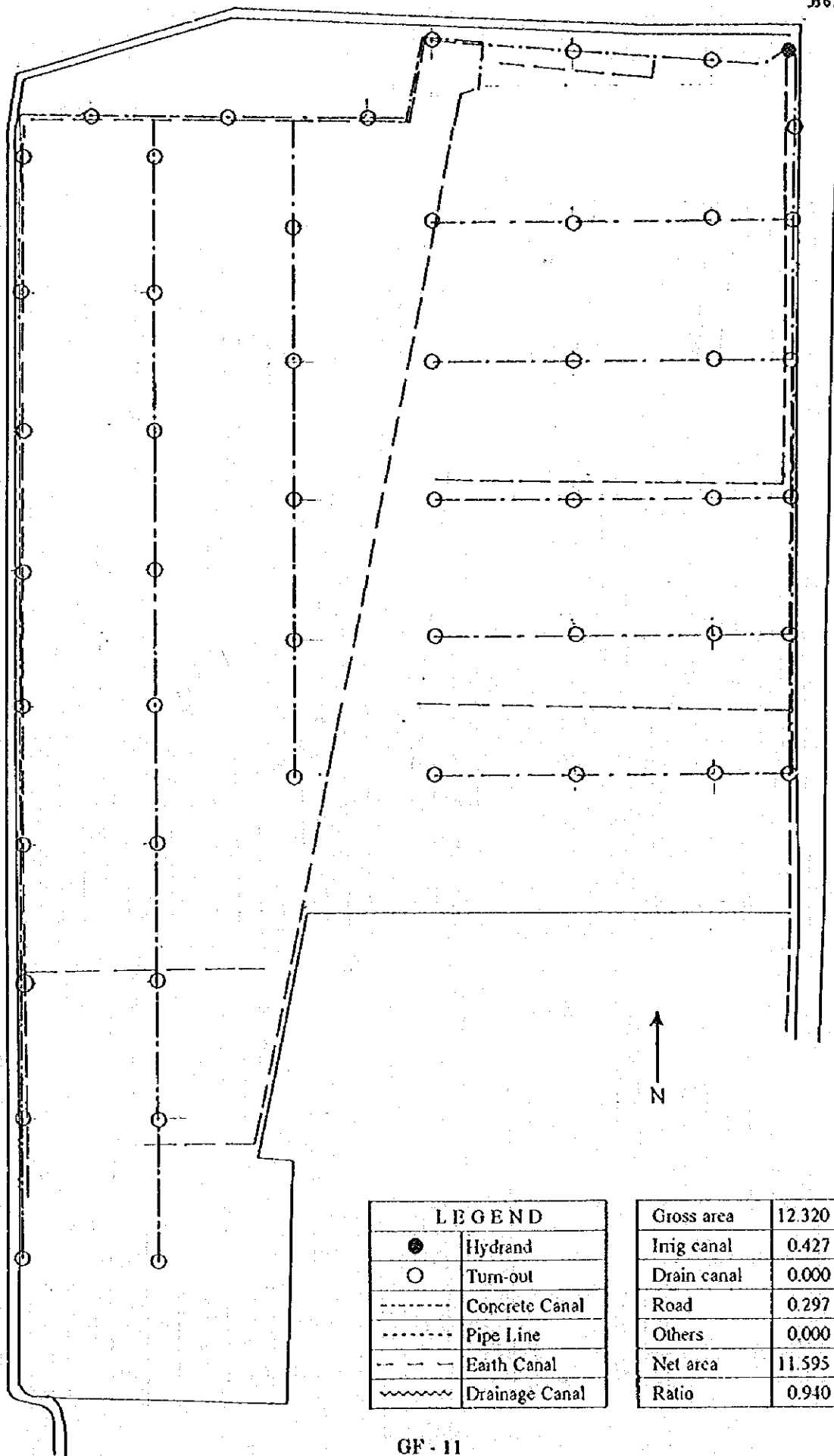


LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	6.036 ha
Irrig canal	0.122 ha
Drain canal	0.000 ha
Road	0.066 ha
Others	0.242 ha
Net area	5.602 ha
Ratio	0.930

# LALLA (3)

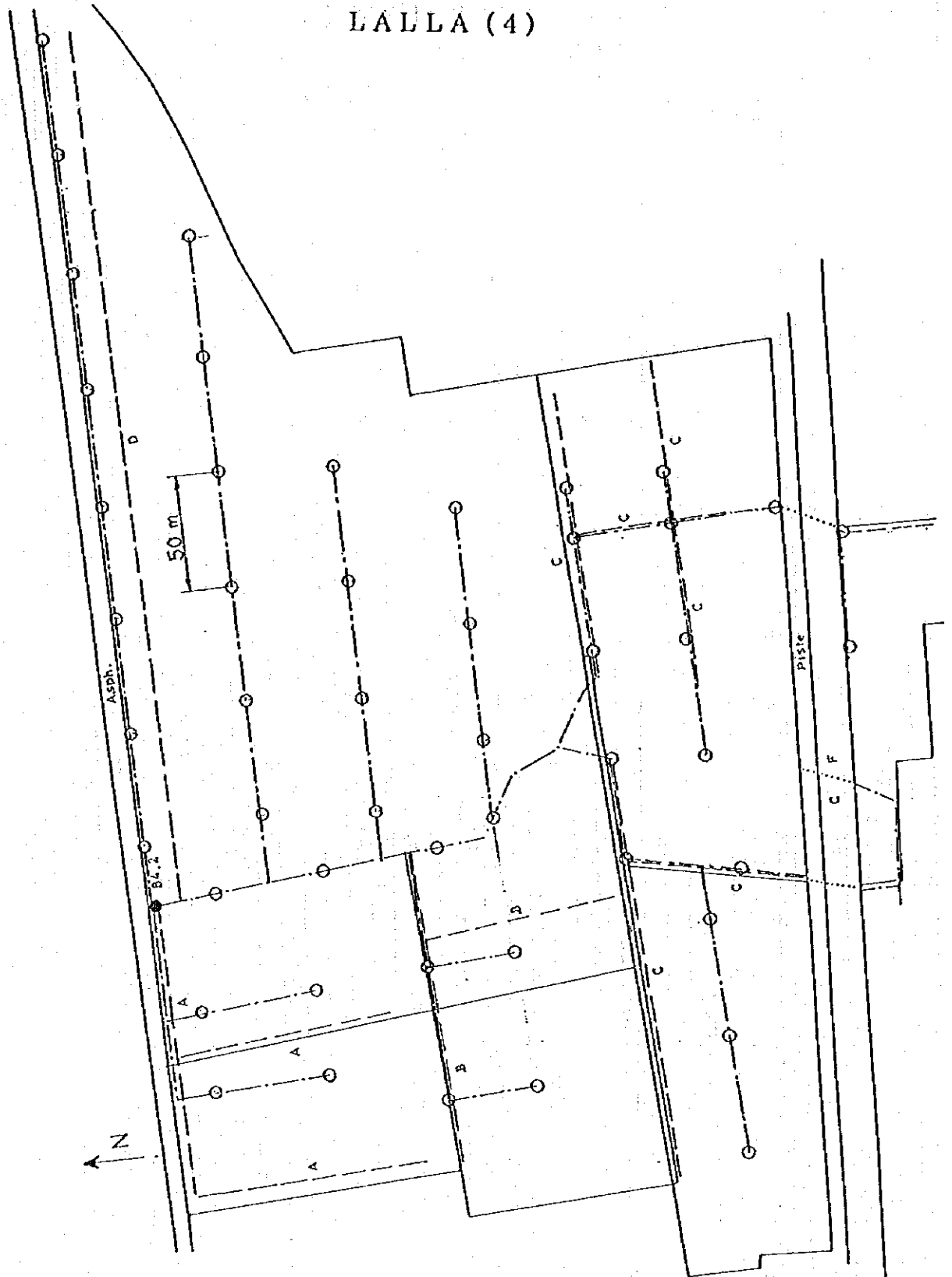
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LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	12.320 ha
Inrig canal	0.427 ha
Drain canal	0.000 ha
Road	0.297 ha
Others	0.000 ha
Net area	11.595 ha
Ratio	0.940

LALLA (4)

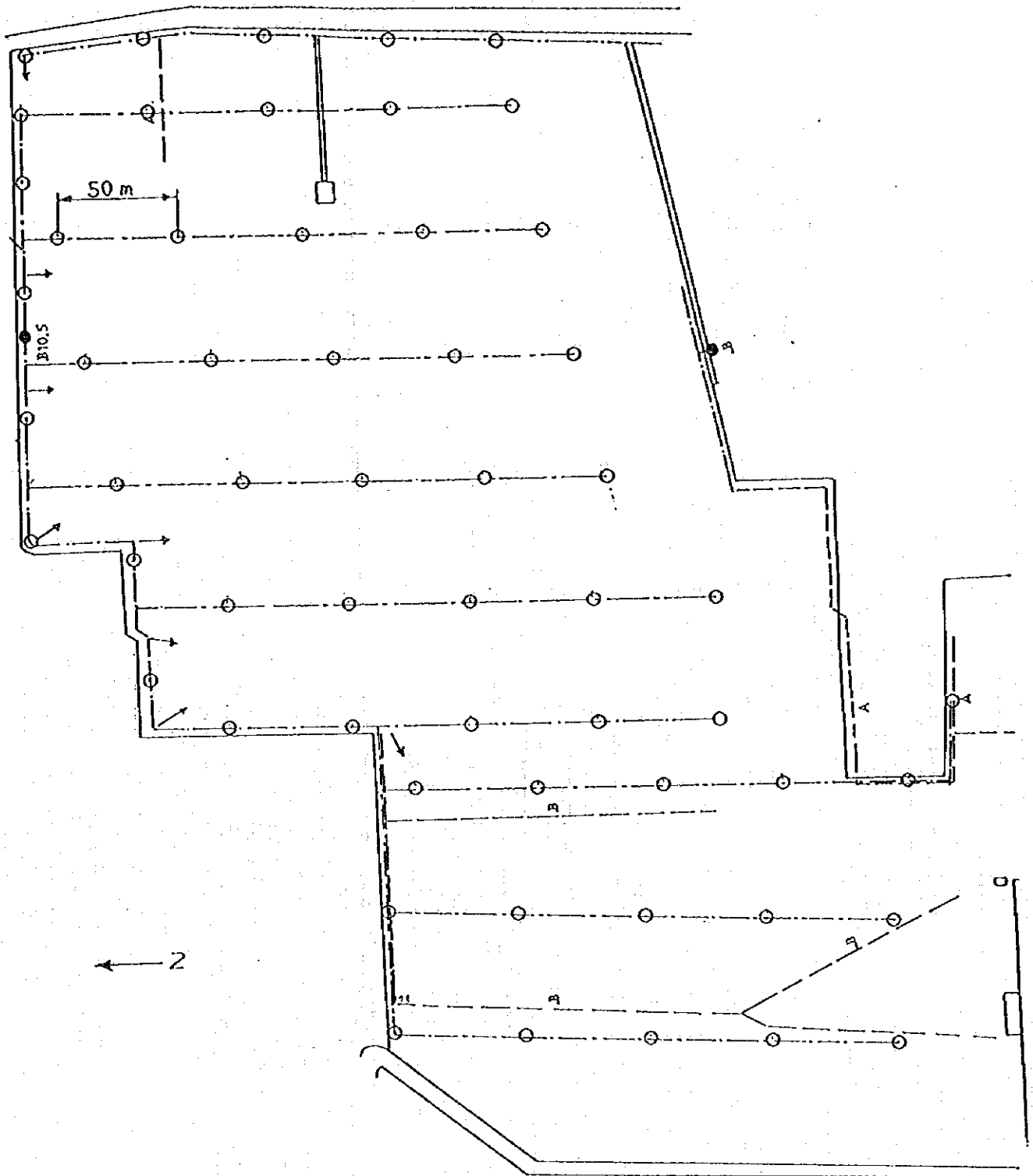


LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	15.800 ha
Irrig canal	0.456 ha
Drain canal	0.000 ha
Road	0.889 ha
Others	0.000 ha
Net area	14.454 ha
Ratio	0.910



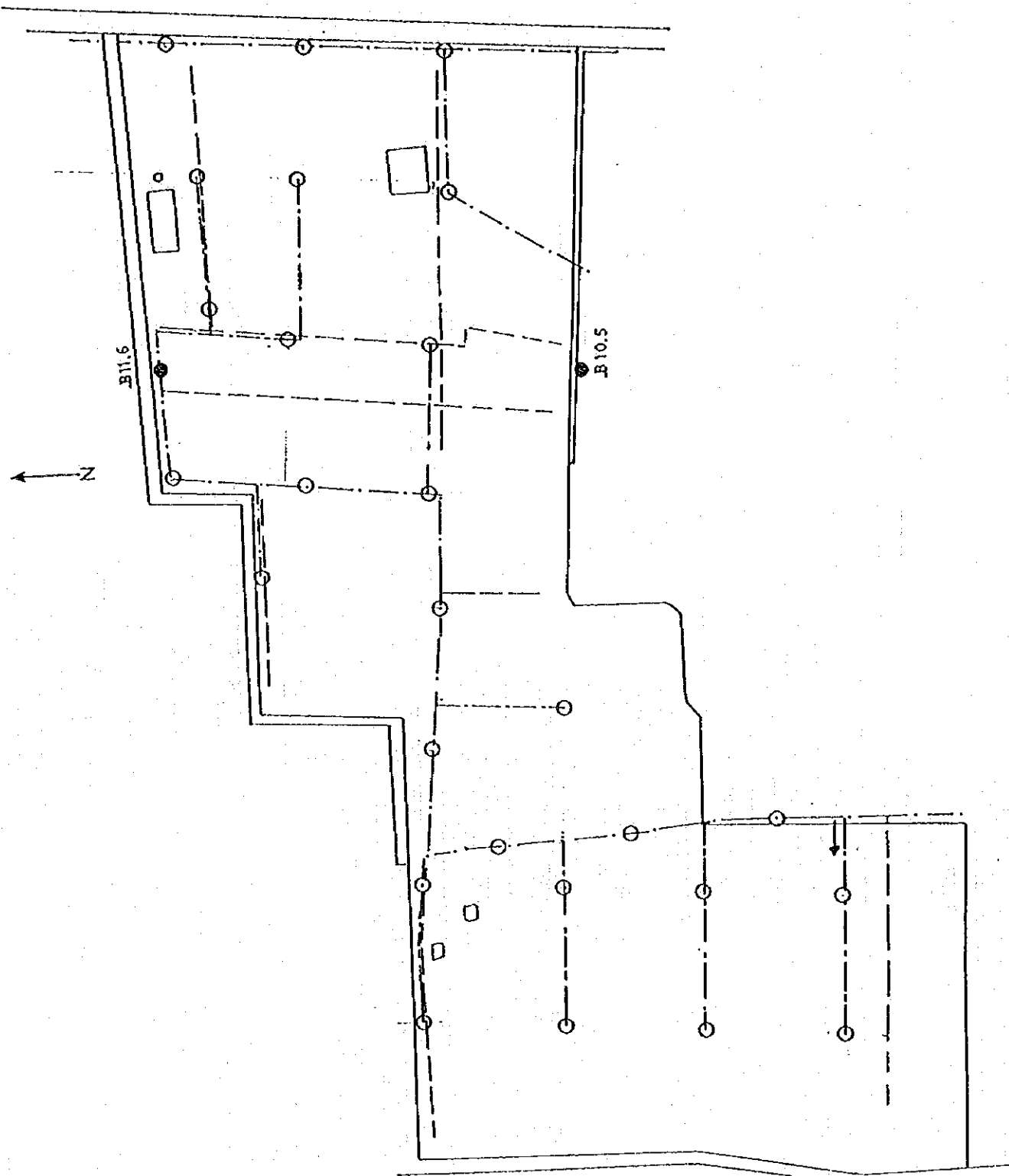
# EL KSAR (2)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	13.300 ha
Irig canal	0.241 ha
Drain canal	0.000 ha
Road	0.214 ha
Others	0.027 ha
Net area	12.719 ha
Ratio	0.950

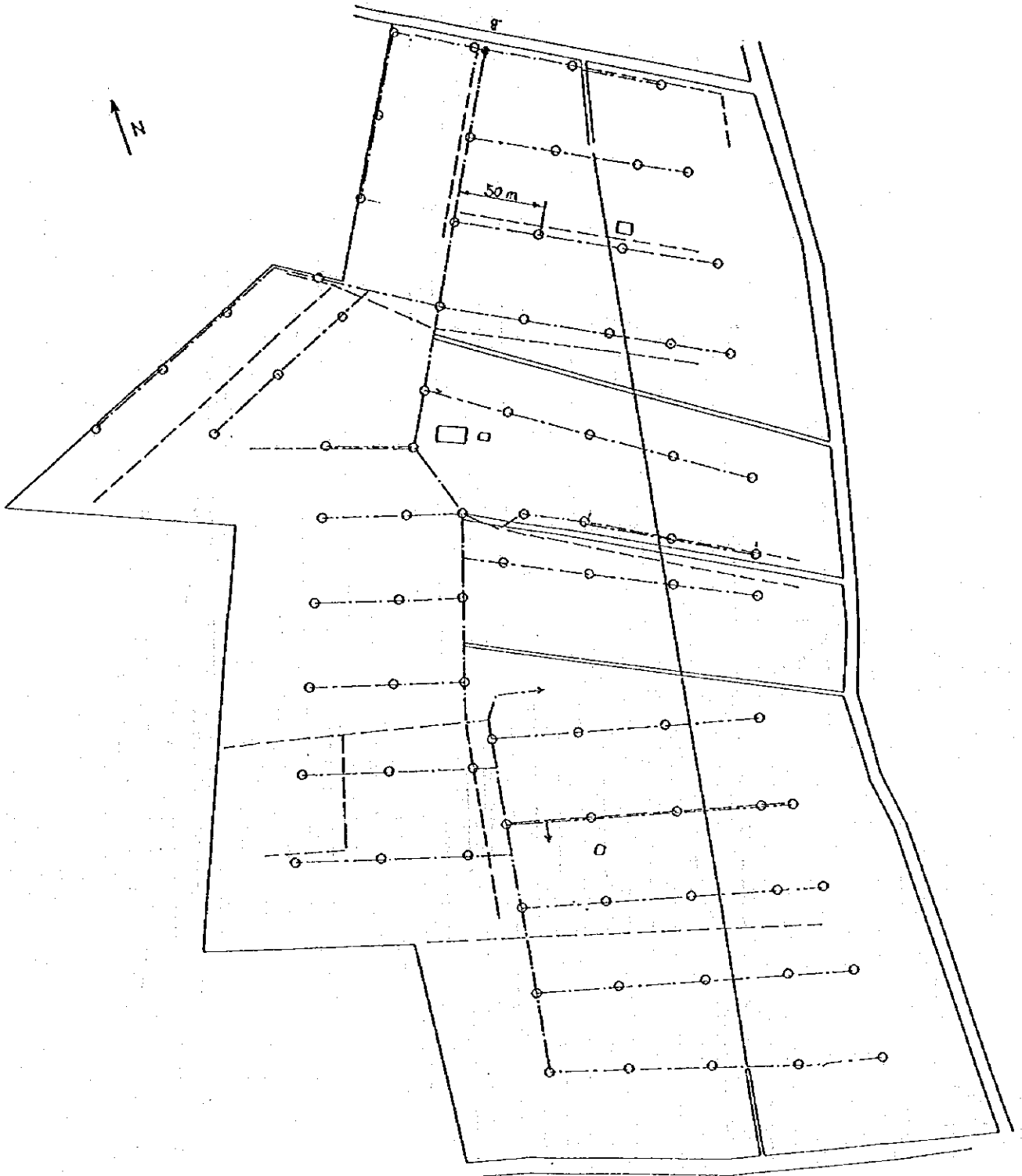
EL KSAR (1)



LEGEND	
●	Hydrant
○	Turn-out
- - - - -	Concrete Canal
.....	Pipe Line
- - - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	7.600 ha
Irig canal	0.204 ha
Drain canal	0.000 ha
Road	0.223 ha
Others	0.051 ha
Net area	7.122 ha
Ratio	0.940

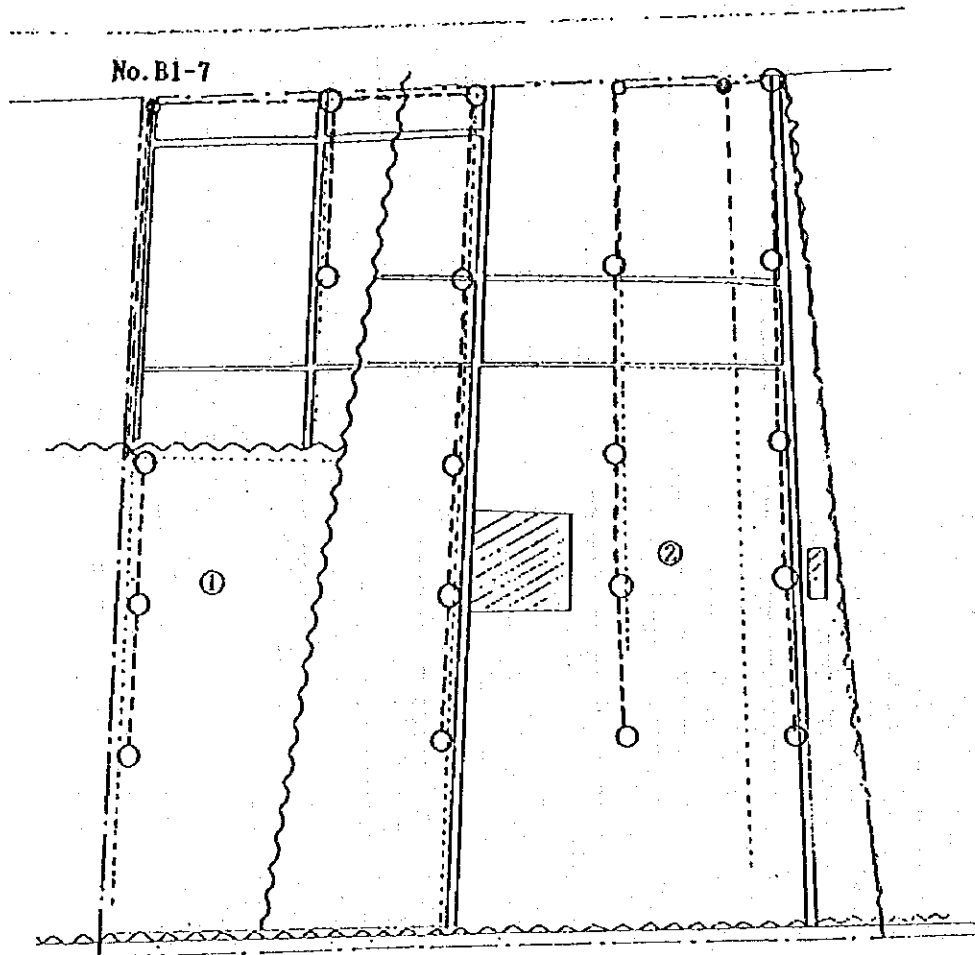
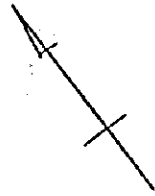
# EL KSAR (3)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	23.720 ha
Irig canal	0.386 ha
Drain canal	0.000 ha
Road	0.517 ha
Others	0.020 ha
Net area	22.800 ha
Ratio	0.960

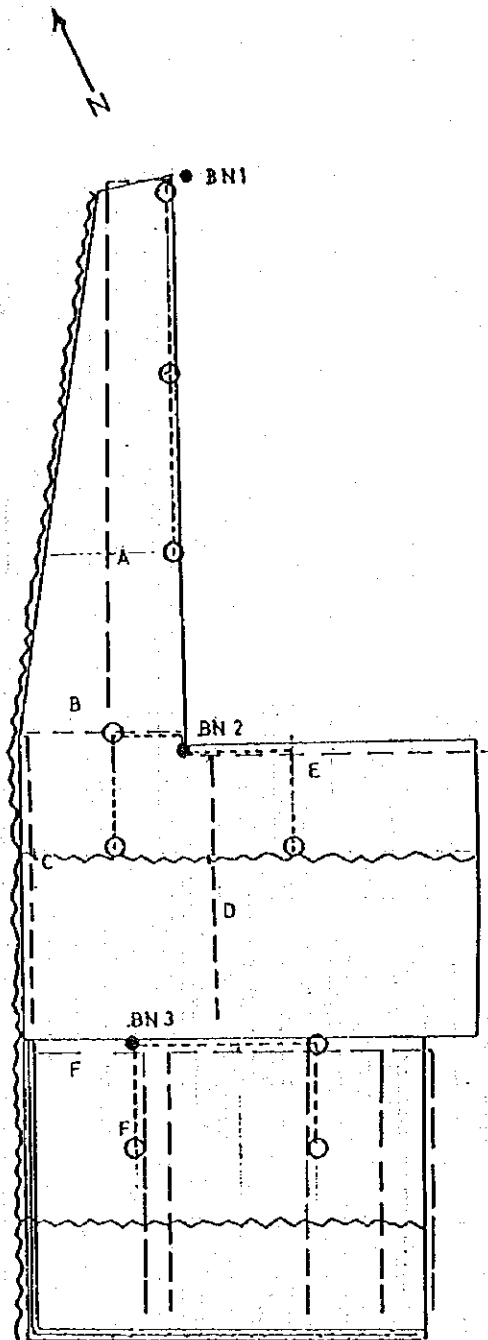
OUED SHILI



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
-----	Pipe Line
- - - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	4.620 ha
Irig canal	0.150 ha
Drain canal	0.190 ha
Road	0.340 ha
Others	0.090 ha
Net area	3.850 ha
Ratio	0.830

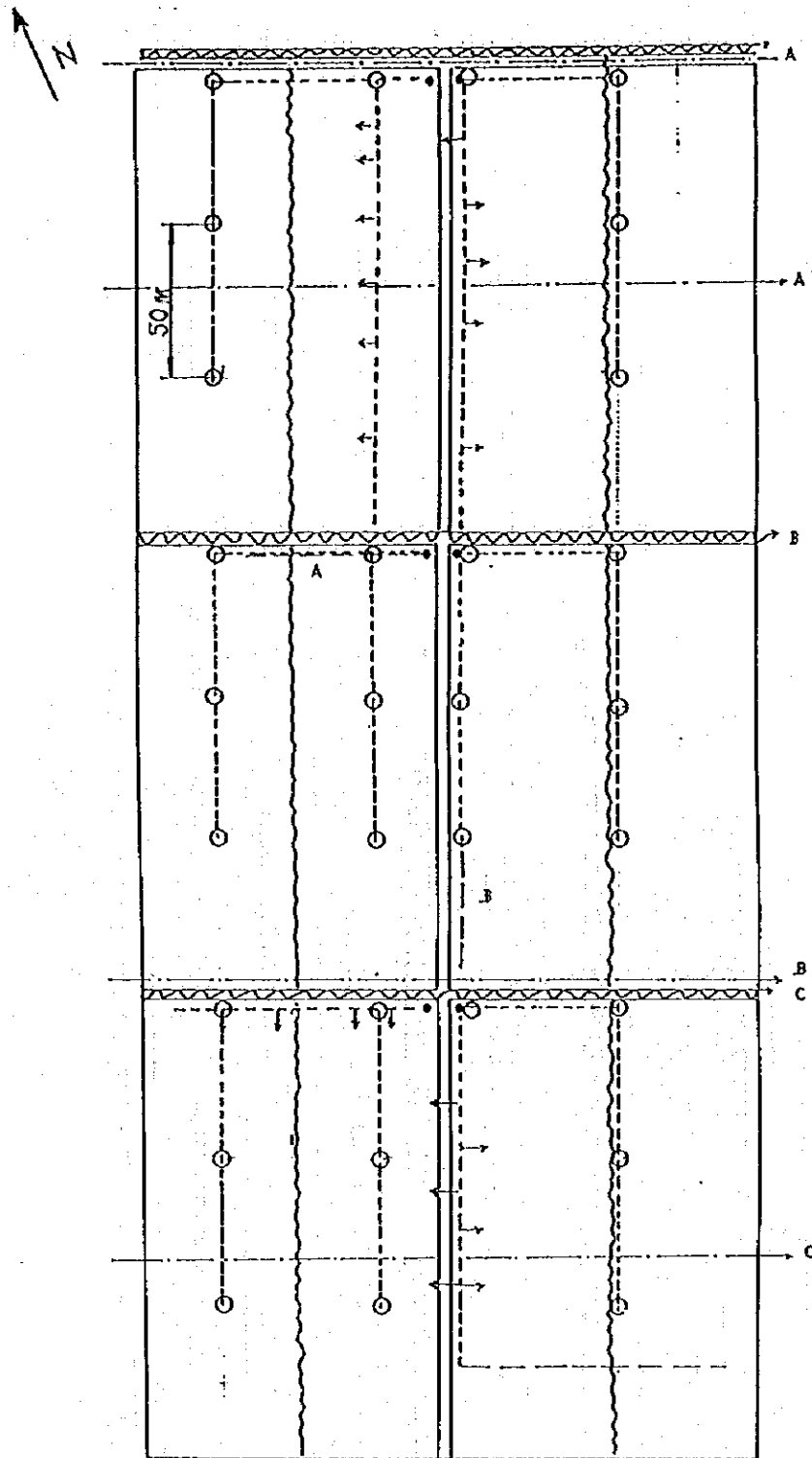
# THELJA



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
— — —	Earth Canal
~~~~~	Drainage Canal

Gross area	2.560 ha
Irig canal	0.169 ha
Drain canal	0.000 ha
Road	0.000 ha
Others	0.000 ha
Net area	2.391 ha
Ratio	0.930

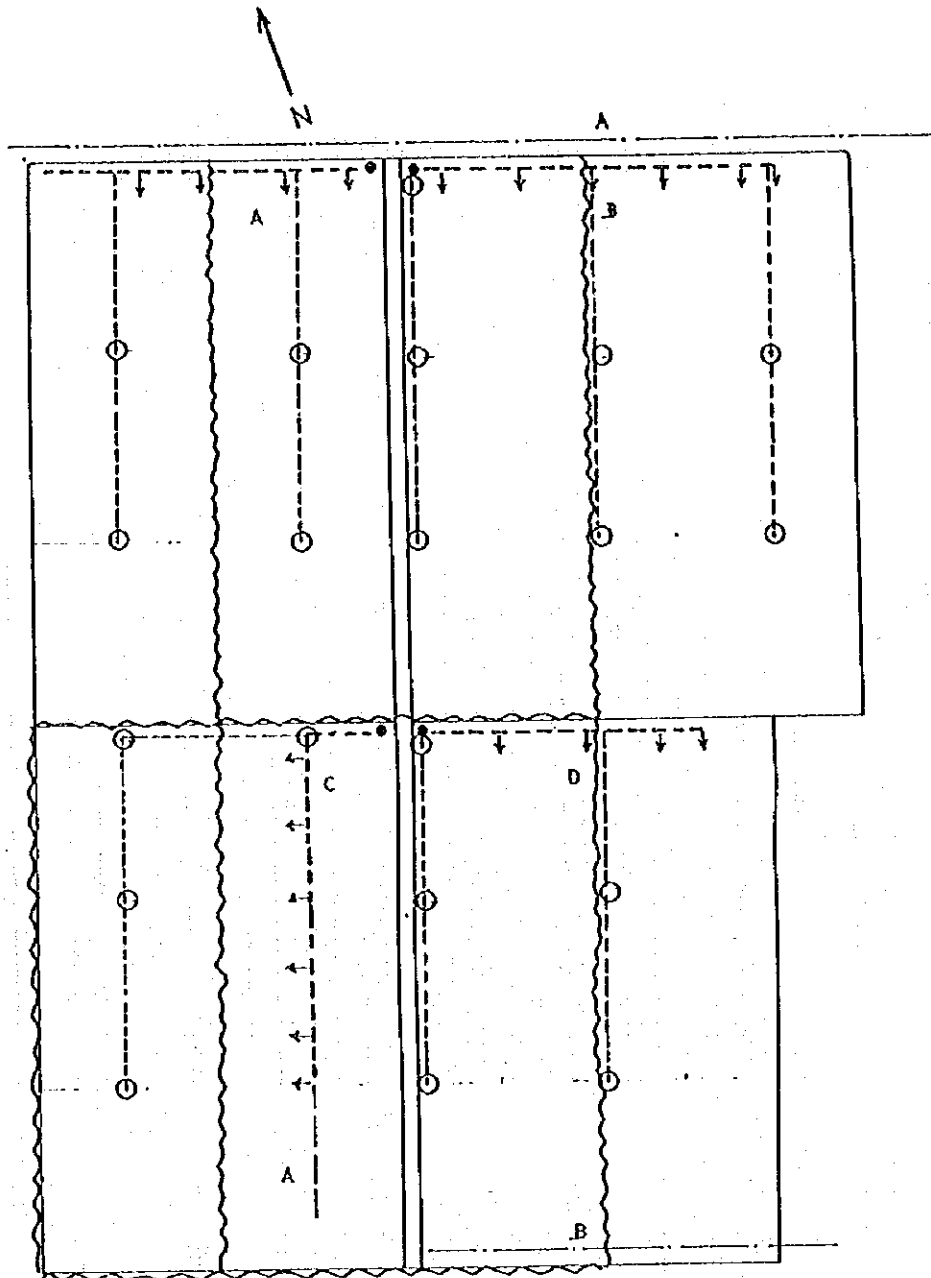
SEGDOUD (1)



LEGEND	
●	Hydrant
○	Turn-out
- - - - -	Concrete Canal
- - - - -	Pipe Line
- - - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	9.000 ha
Irriq canal	0.053 ha
Drain canal	0.250 ha
Road	0.140 ha
Others	0.000 ha
Net area	8.557 ha
Ratio	0.950

# SEGDOUD (2)

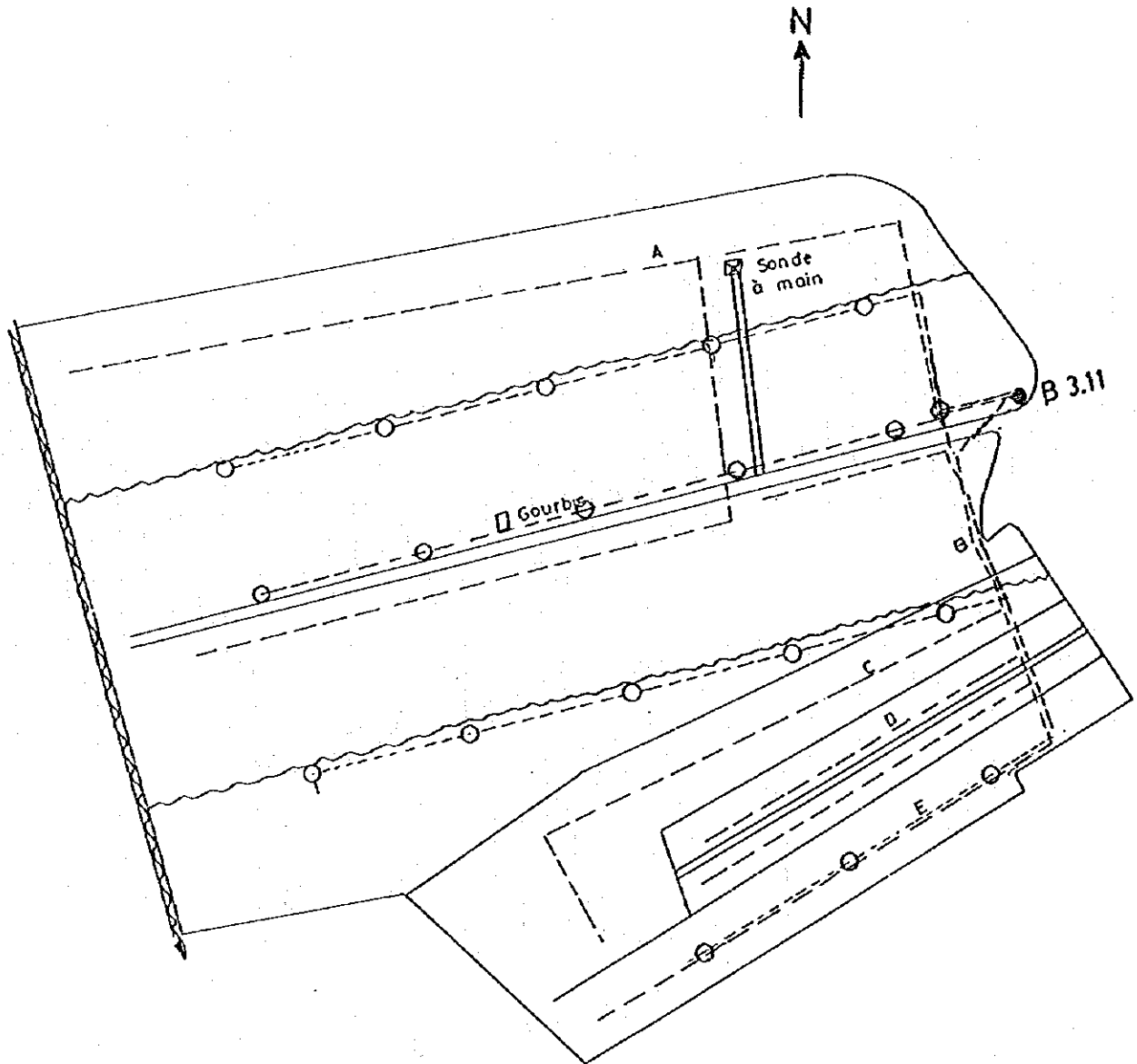


LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	6.360 ha
Irig canal	0.029 ha
Drain canal	0.000 ha
Road	0.120 ha
Others	0.000 ha
Net area	6.210 ha
Ratio	0.980

**(2) IMPROVEMENT PLAN OF IRRIGATION AND DRAINAGE FACILITIES
IN TOZEUR GOVERNORATE**

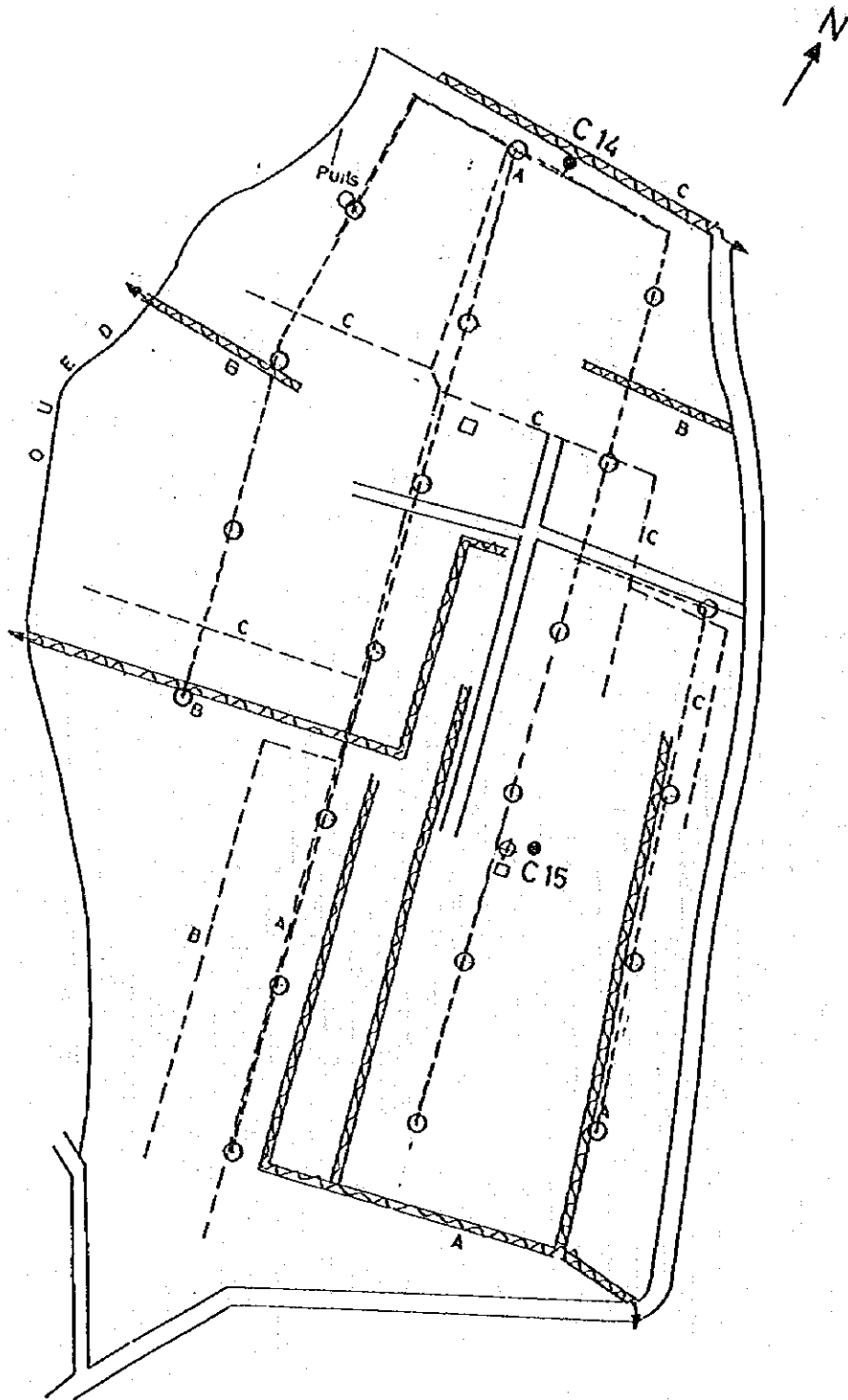
TOZEUR (1)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
-----	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	6.000 ha
Irrig canal	0.237 ha
Drain canal	0.035 ha
Road	0.112 ha
Others	0.159 ha
Net area	5.457 ha
Ratio	0.910

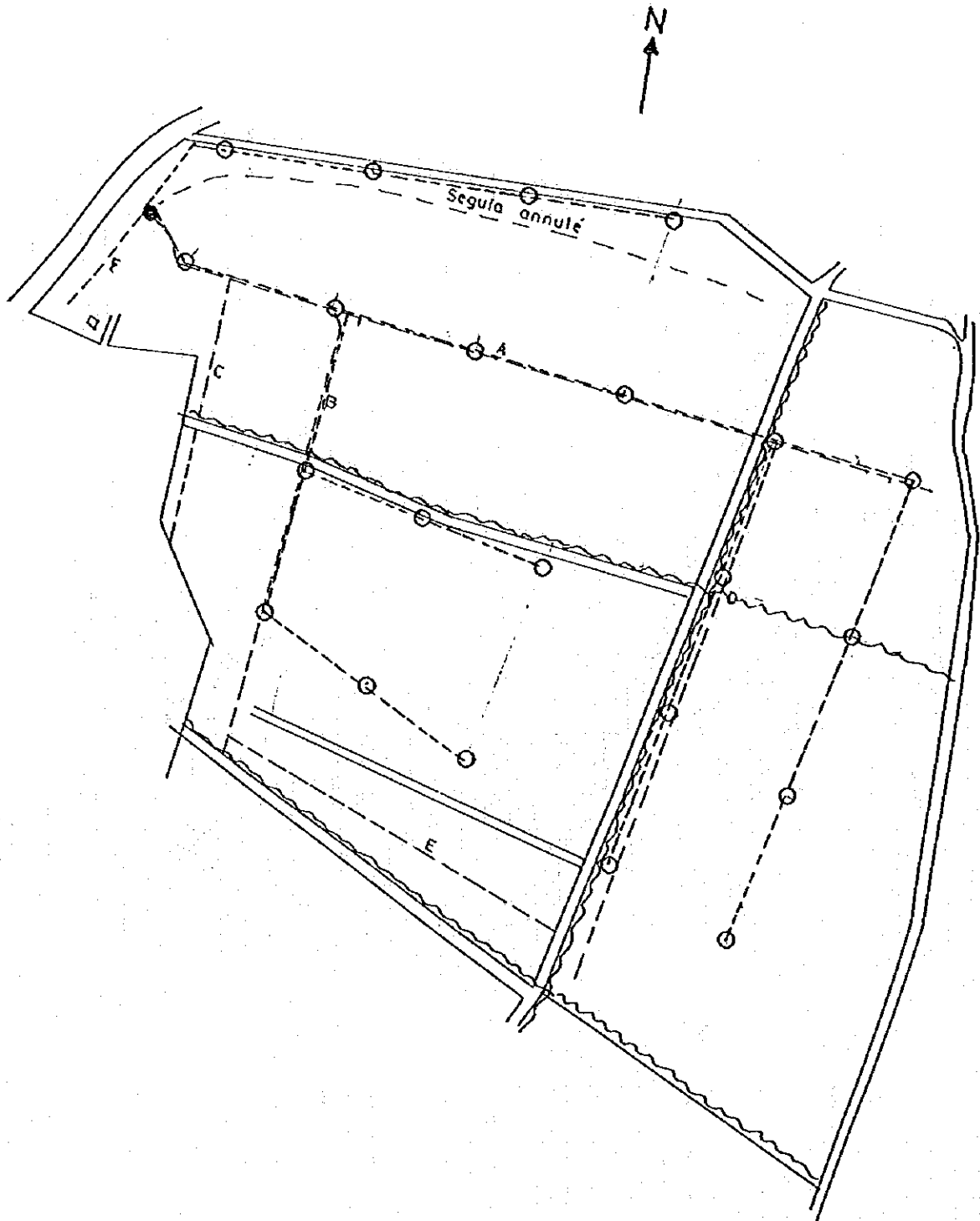
# TOZEUR (2)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - -	Earth Canal
~~~~~	Drainage Canal

Gross area	6.570 ha
Irig canal	0.154 ha
Drain canal	0.322 ha
Road	0.173 ha
Others	0.073 ha
Net area	5.847 ha
Ratio	0.890

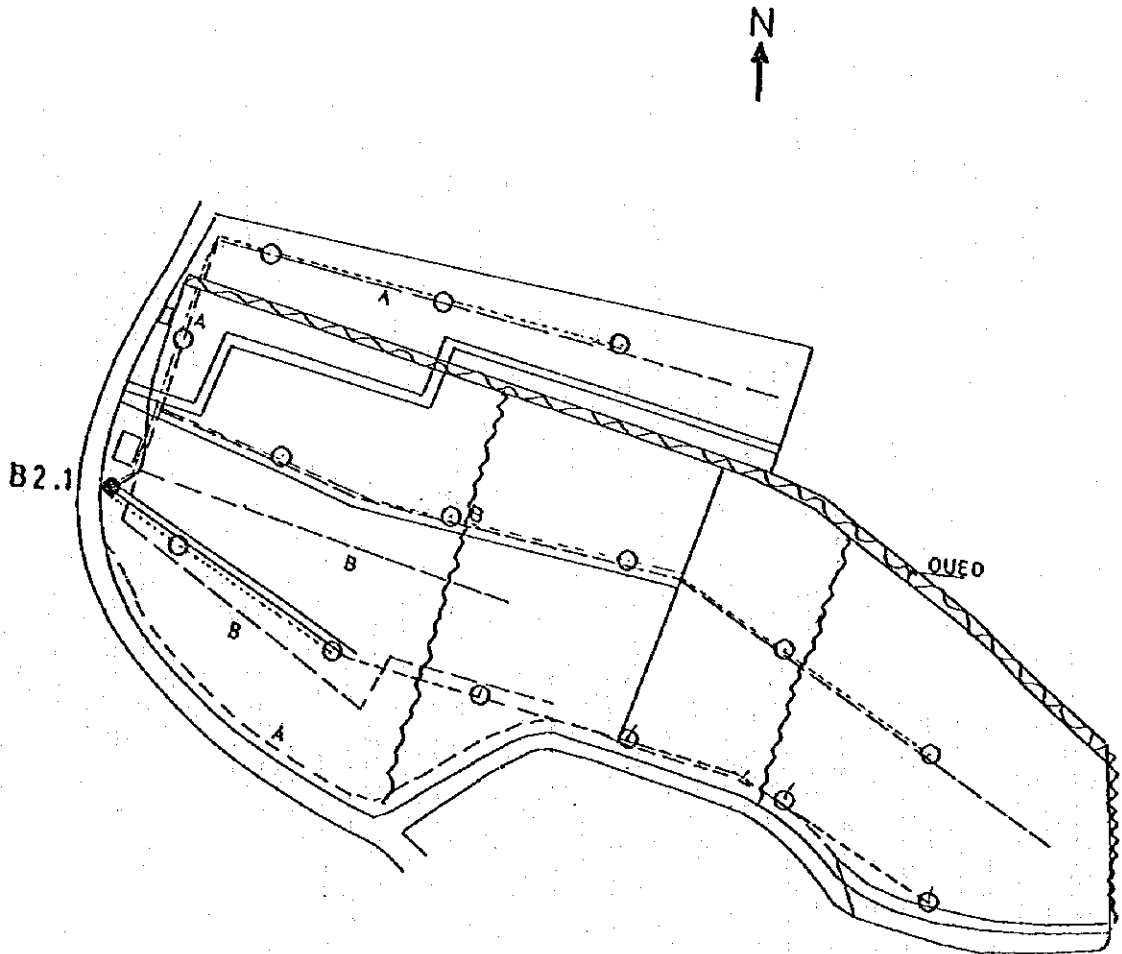
TOZEUR (3)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
-----	Earth Canal
~~~~~	Drainage Canal

Gross area	5.650 ha
Irig canal	0.159 ha
Drain canal	0.000 ha
Road	0.084 ha
Others	0.262 ha
Net area	5.145 ha
Ratio	0.910

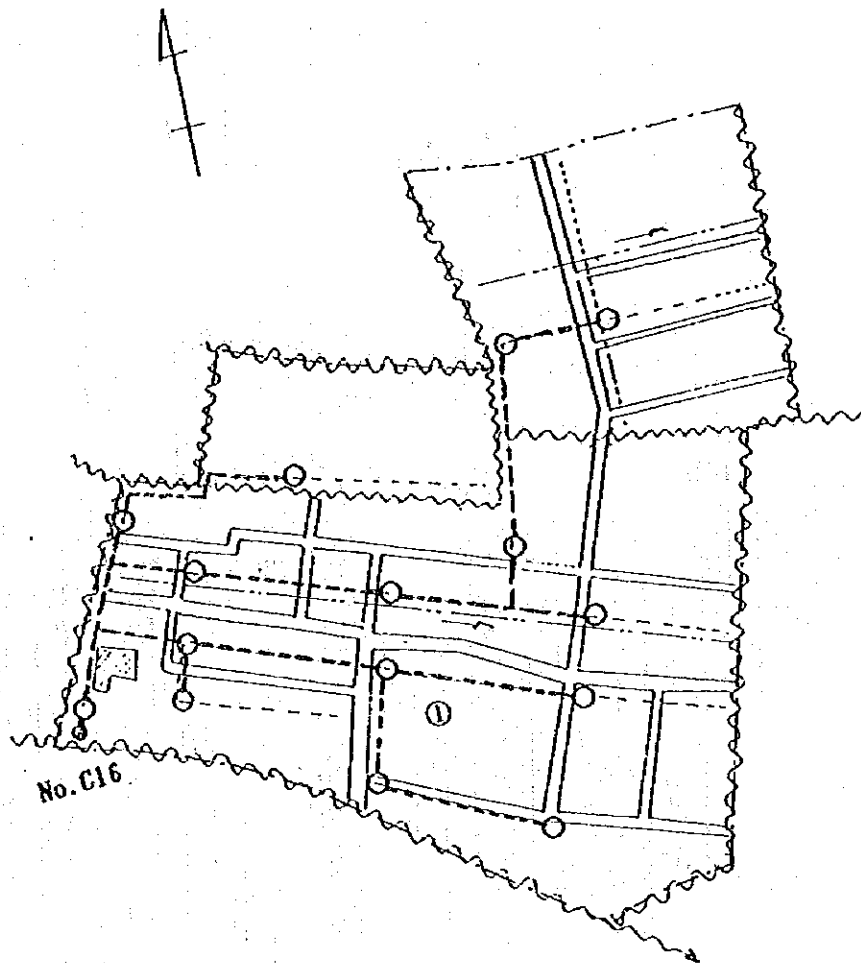
# TOZEUR (4)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	3.410 ha
Irrig canal	0.131 ha
Drain canal	0.000 ha
Road	0.000 ha
Others	0.098 ha
Net area	3.261 ha
Ratio	0.930

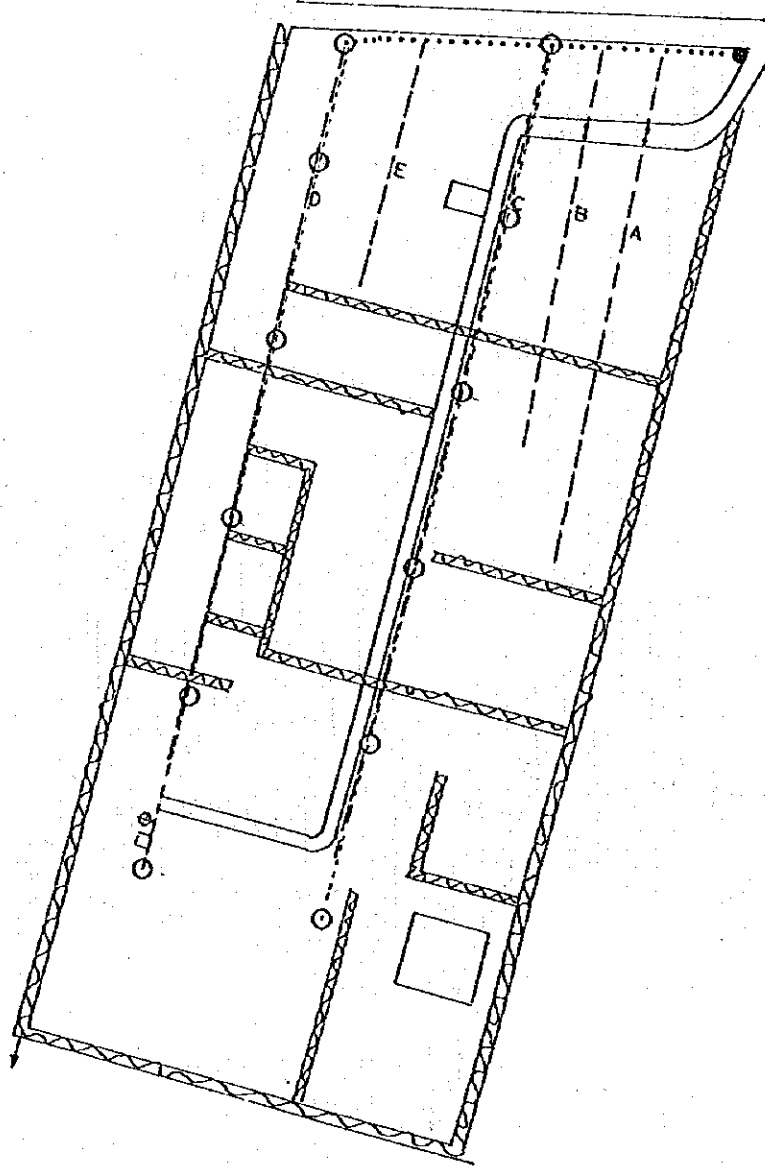
TOZEUR (5)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
-----	Pipe Line
--- --	Earth Canal
~~~~~	Drainage Canal

Gross area	2.760 ha
Irrig canal	0.110 ha
Drain canal	0.070 ha
Road	0.140 ha
Others	0.010 ha
Net area	2.430 ha
Ratio	0.880

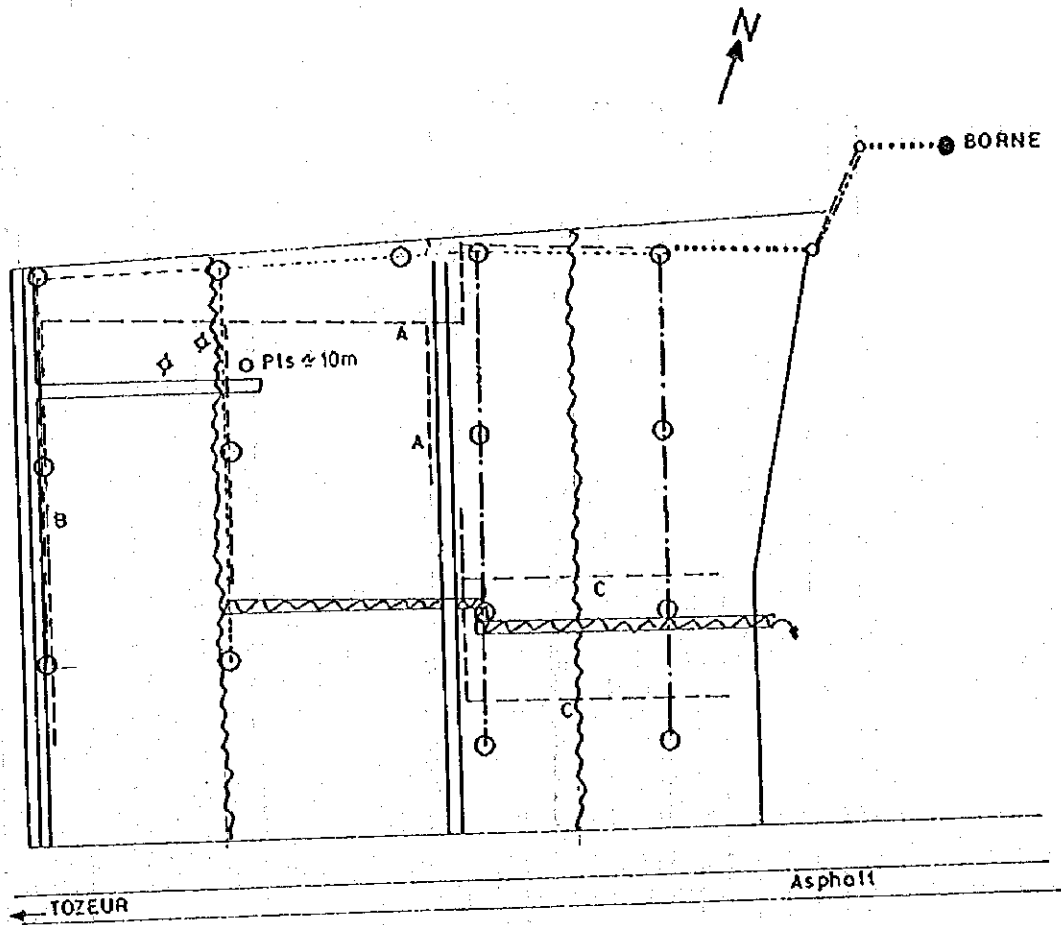
# KASTILIA



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- . - . -	Earth Canal
~~~~~	Drainage Canal

Gross area	3.200 ha
Inrig canal	0.117 ha
Drain canal	0.283 ha
Road	0.023 ha
Others	0.149 ha
Net area	2.628 ha
Ratio	0.820

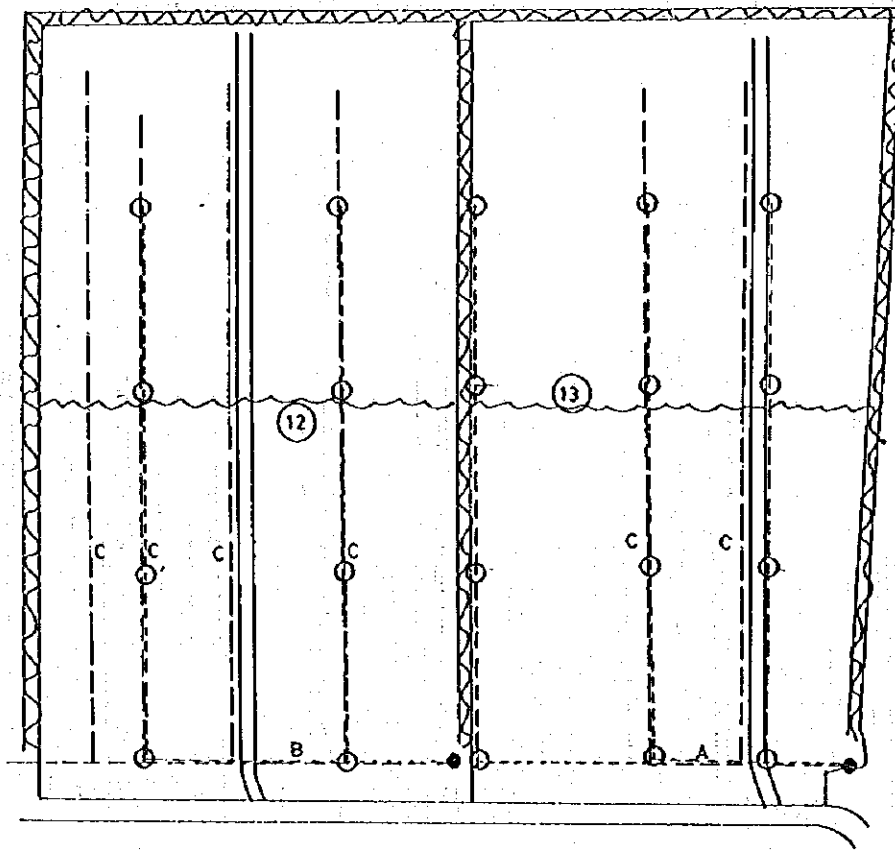
OUED EL KOUCHA



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	4.000 ha
Irrig canal	0.106 ha
Drain canal	0.060 ha
Road	0.130 ha
Others	0.108 ha
Net area	3.596 ha
Ratio	0.900

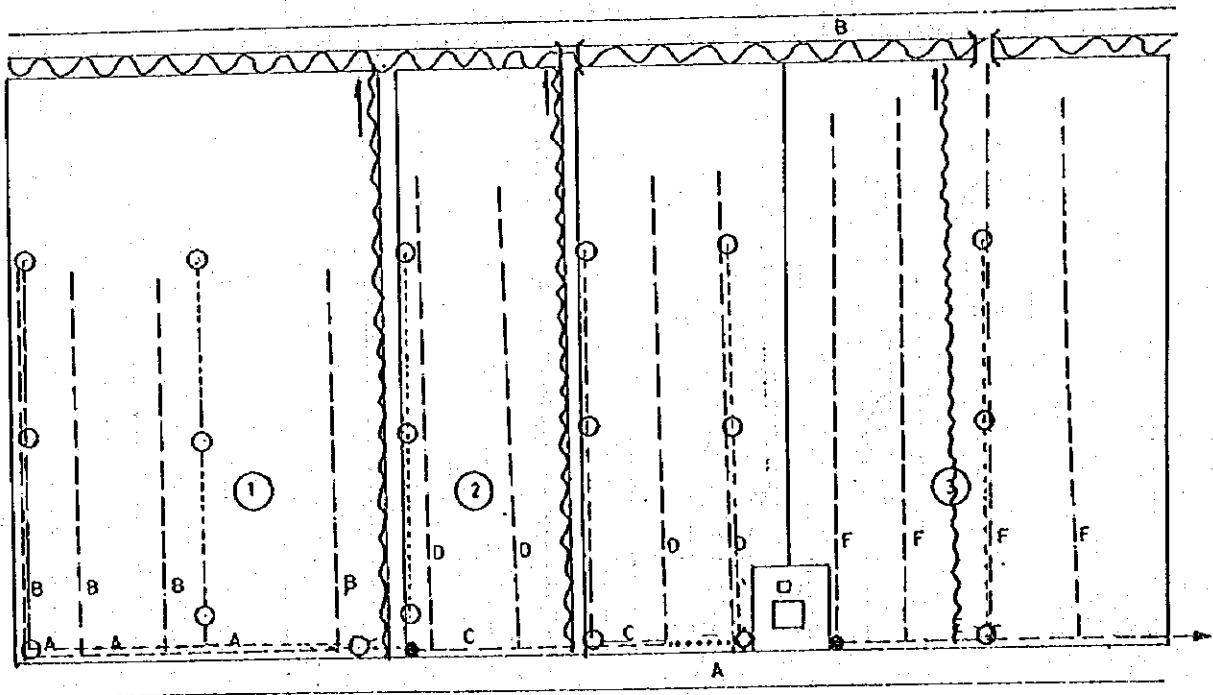
# NEFLAYETTE



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - -	Earth Canal
~~~~~	Drainage Canal

Gross area	5.400 ha
Irrig canal	0.180 ha
Drain canal	0.255 ha
Road	0.042 ha
Others	0.012 ha
Net area	4.803 ha
Ratio	0.890

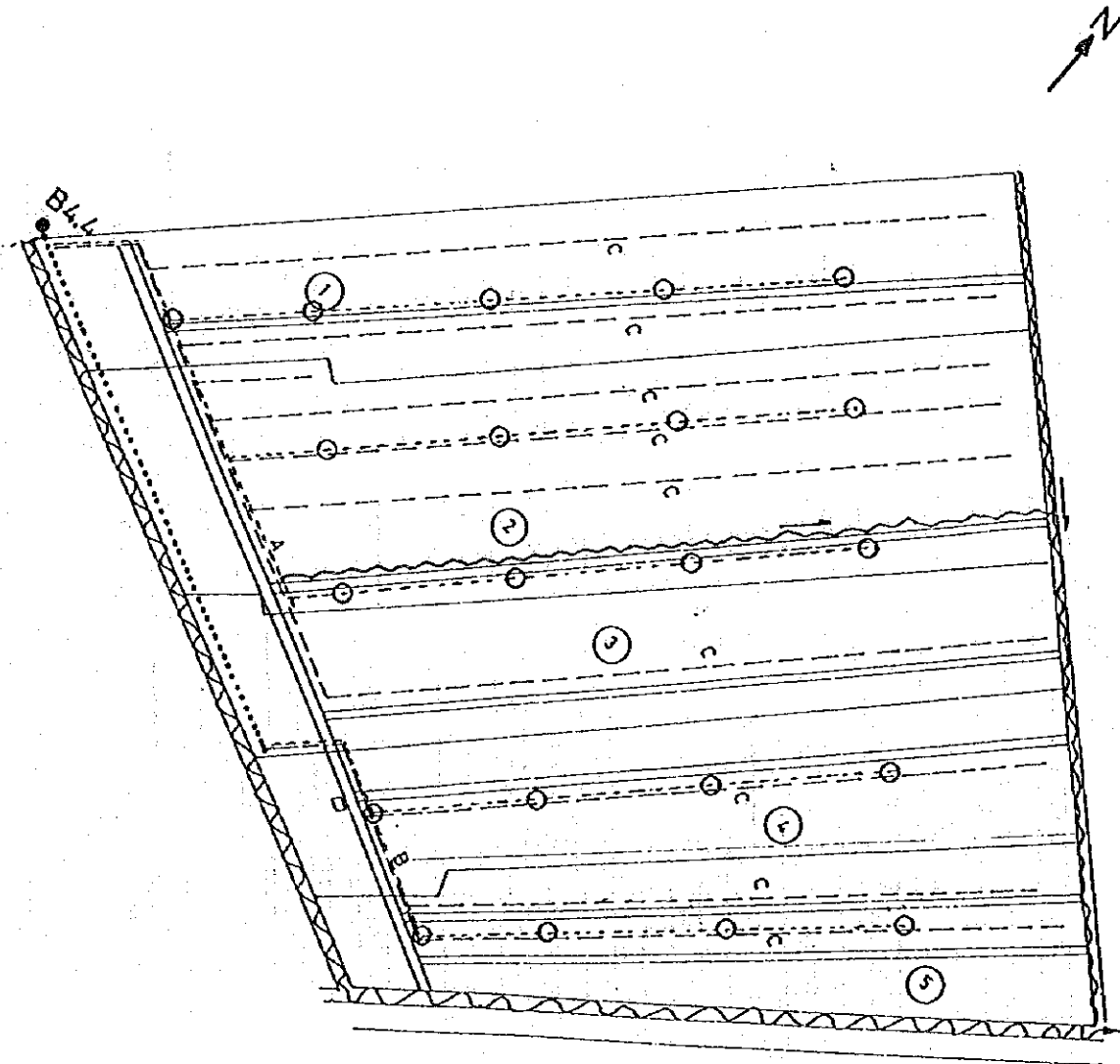
CHEMSA



LEGEND	
●	Hydrant
○	Turn-out
----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	5.920 ha
Irrig canal	0.239 ha
Drain canal	0.160 ha
Road	0.270 ha
Others	0.000 ha
Net area	5.252 ha
Ratio	0.890

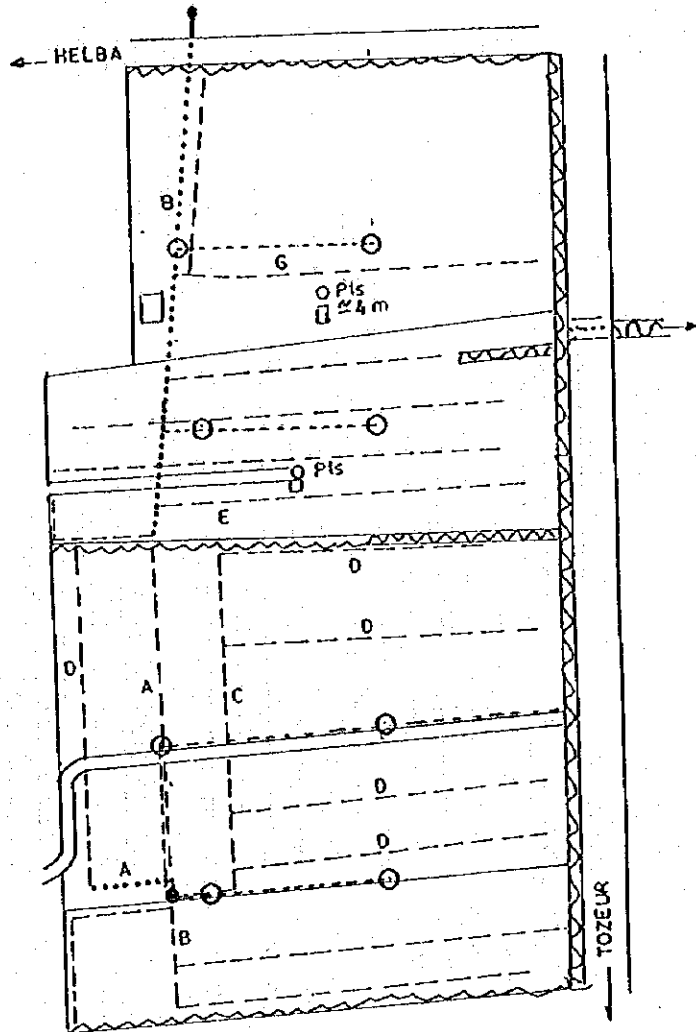
# HELBA EST



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	4.950 ha
Irrig canal	0.361 ha
Drain canal	0.045 ha
Road	0.075 ha
Others	0.438 ha
Net area	4.031 ha
Ratio	0.810

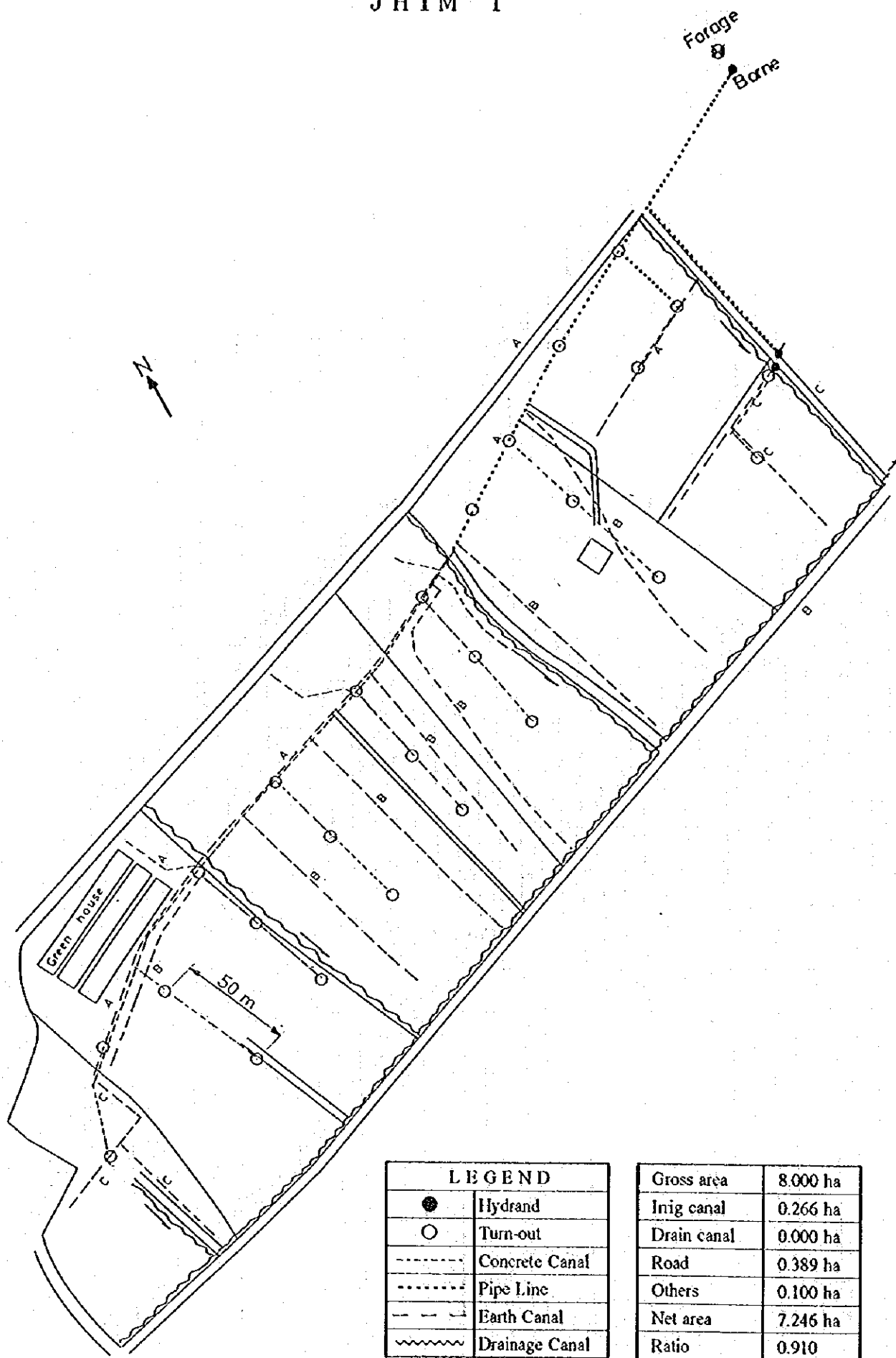
HELBA OUEST



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - - -	Earth Canal
~~~~~	Drainage Canal

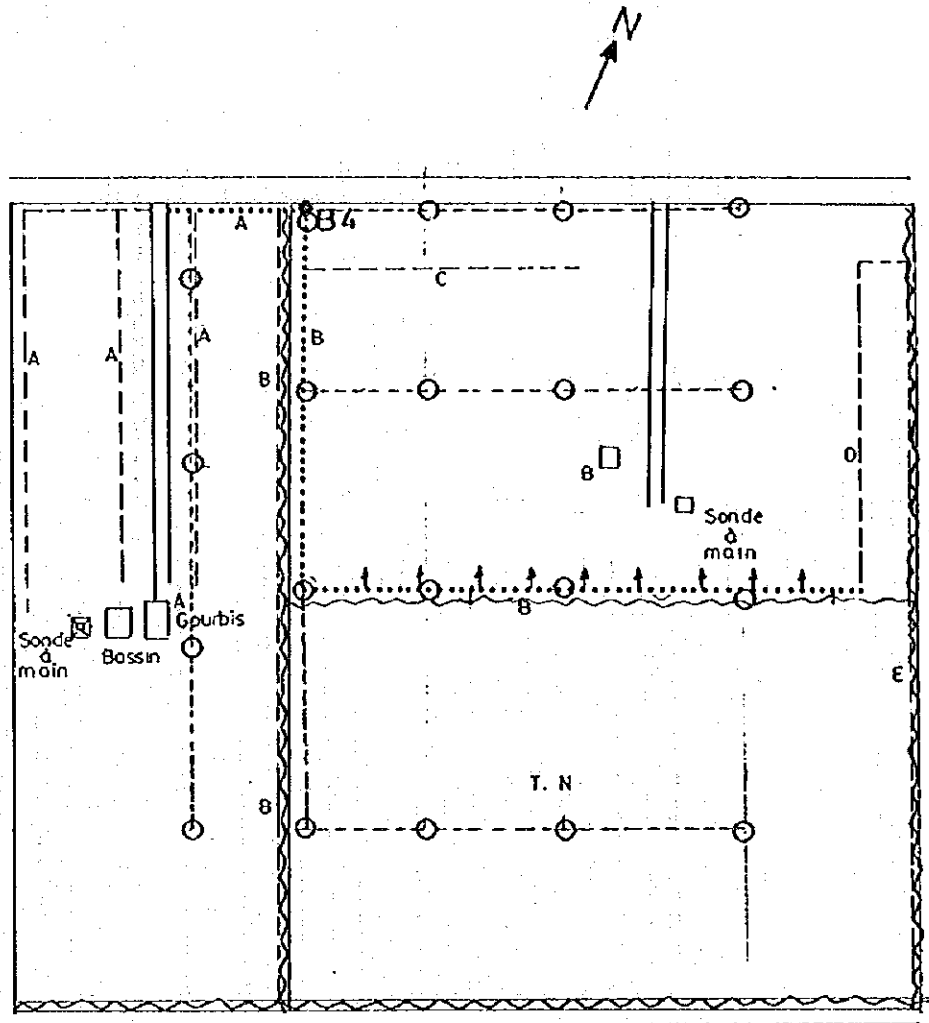
Gross area	4.095 ha
Irrig canal	0.242 ha
Drain canal	0.066 ha
Road	1E-04 ha
Others	0.074 ha
Net area	3.713 ha
Ratio	0.910

# JHIM 1



LEGEND	
●	Hydrant
○	Turn-out
---	Concrete Canal
.....	Pipe Line
- - -	Earth Canal
~~~~~	Drainage Canal

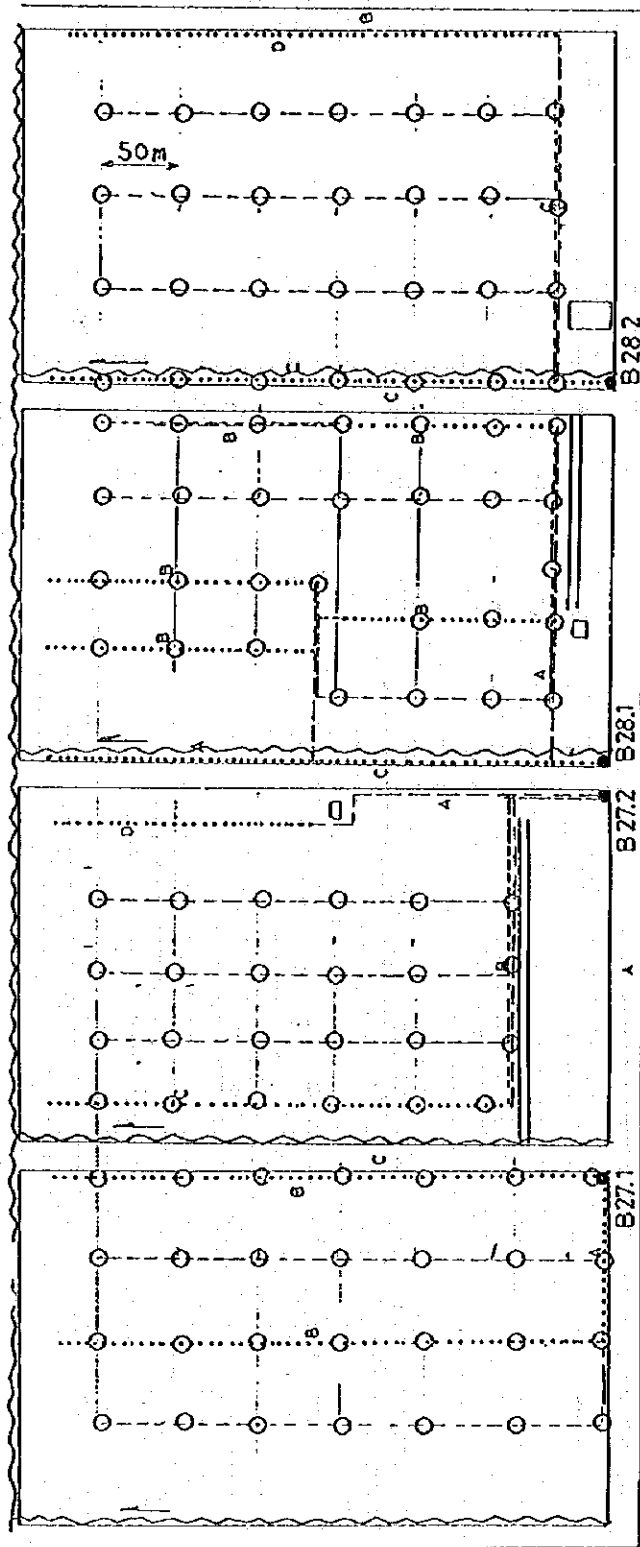
Gross area	8.000 ha
Irig canal	0.266 ha
Drain canal	0.000 ha
Road	0.389 ha
Others	0.100 ha
Net area	7.246 ha
Ratio	0.910



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	6.000 ha
Irrig canal	0.171 ha
Drain canal	0.000 ha
Road	0.204 ha
Others	0.066 ha
Net area	5.559 ha
Ratio	0.930

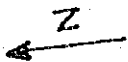
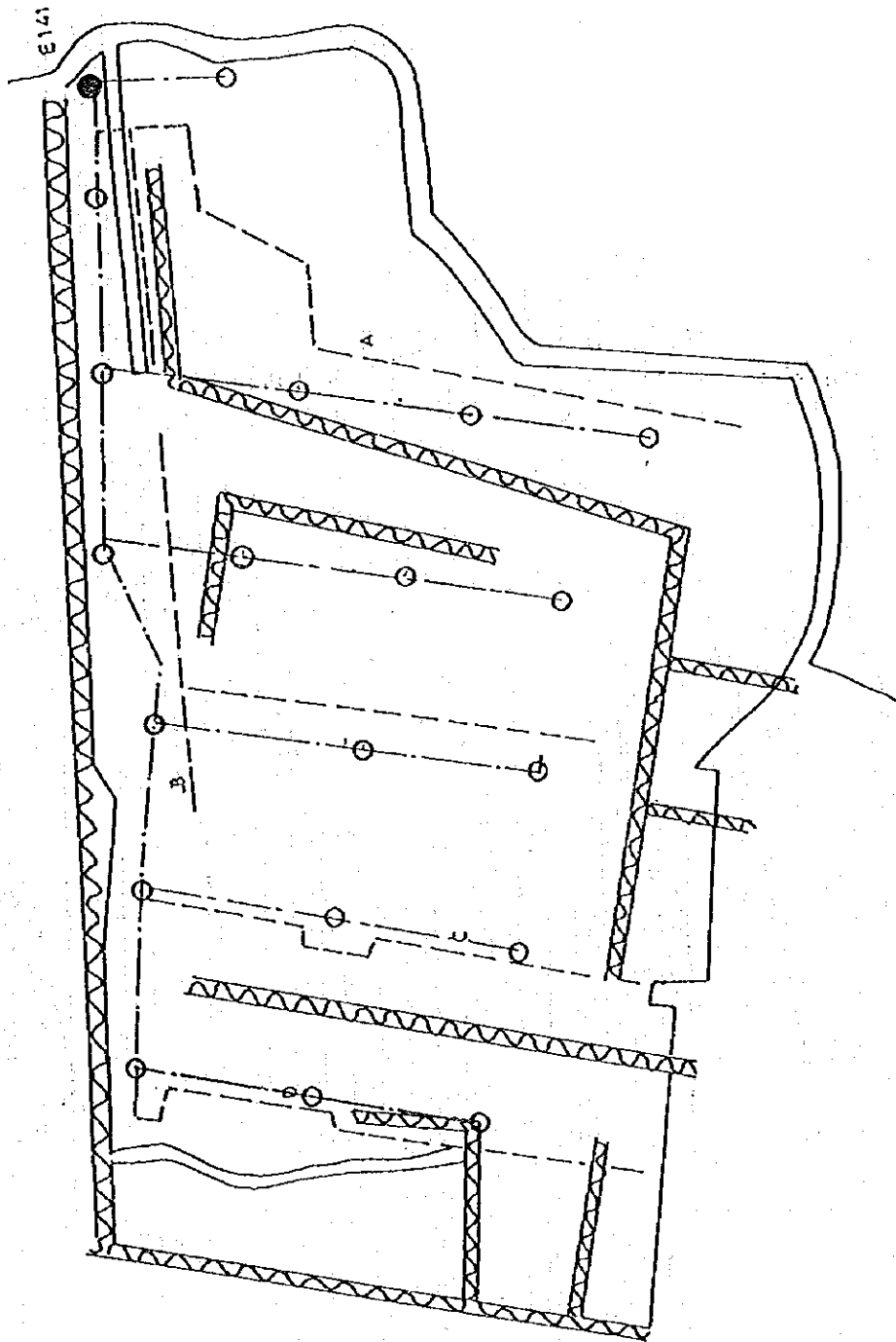
# IBN CHABBAT 3



LEGEND	
●	Hydrant
○	Turn-out
- - - - -	Concrete Canal
. . . . .	Pipe Line
- - -	Earth Canal
~~~~~	Drainage Canal

Gross area	9.600 ha
Irrig canal	0.167 ha
Drain canal	0.000 ha
Road	0.508 ha
Others	0.064 ha
Net area	8.862 ha
Ratio	0.920

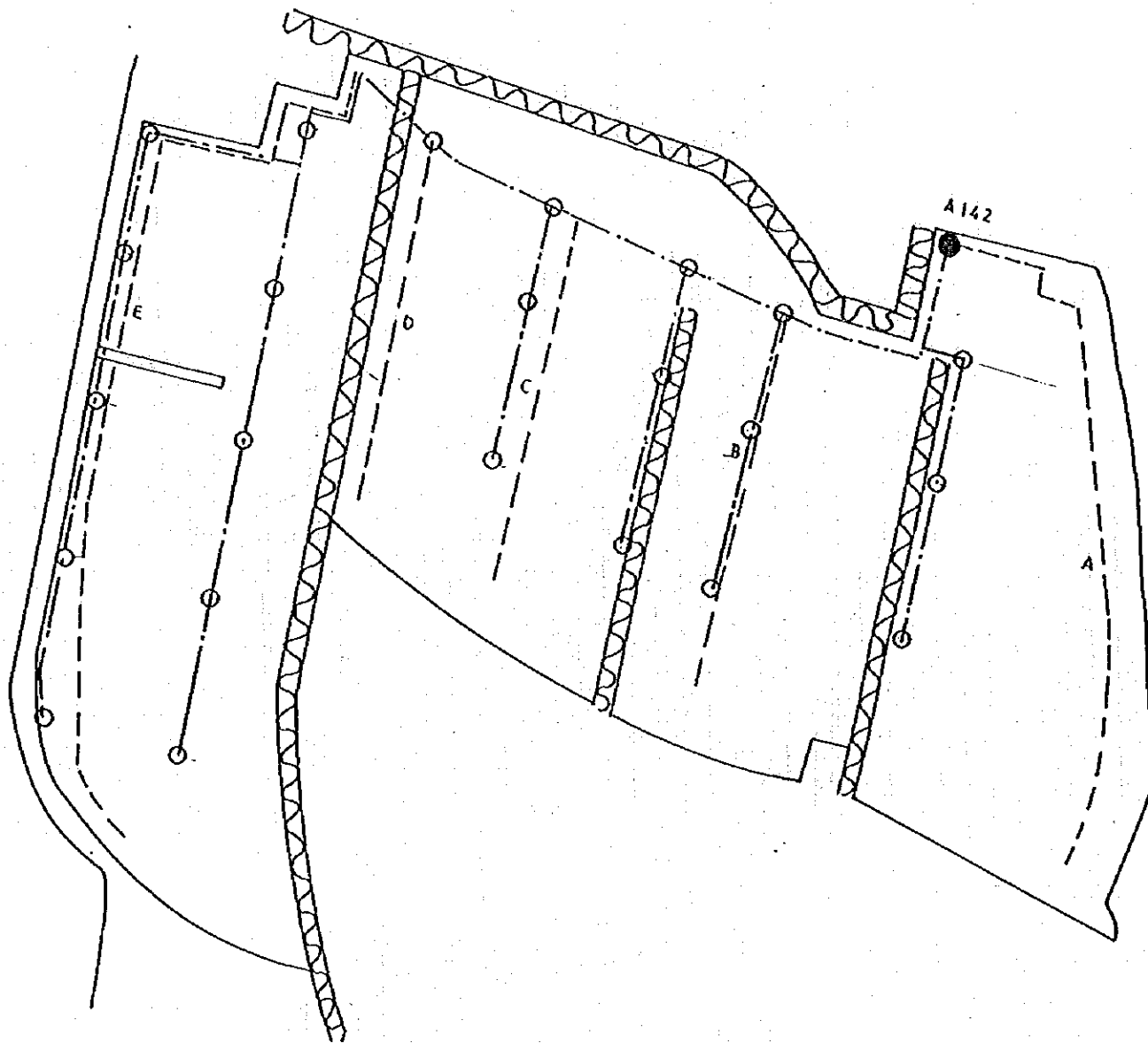
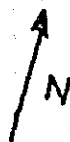
NEFTA (1)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	5.752 ha
Irrig canal	0.163 ha
Drain canal	0.354 ha
Road	0.195 ha
Others	0.000 ha
Net area	5.040 ha
Ratio	0.880

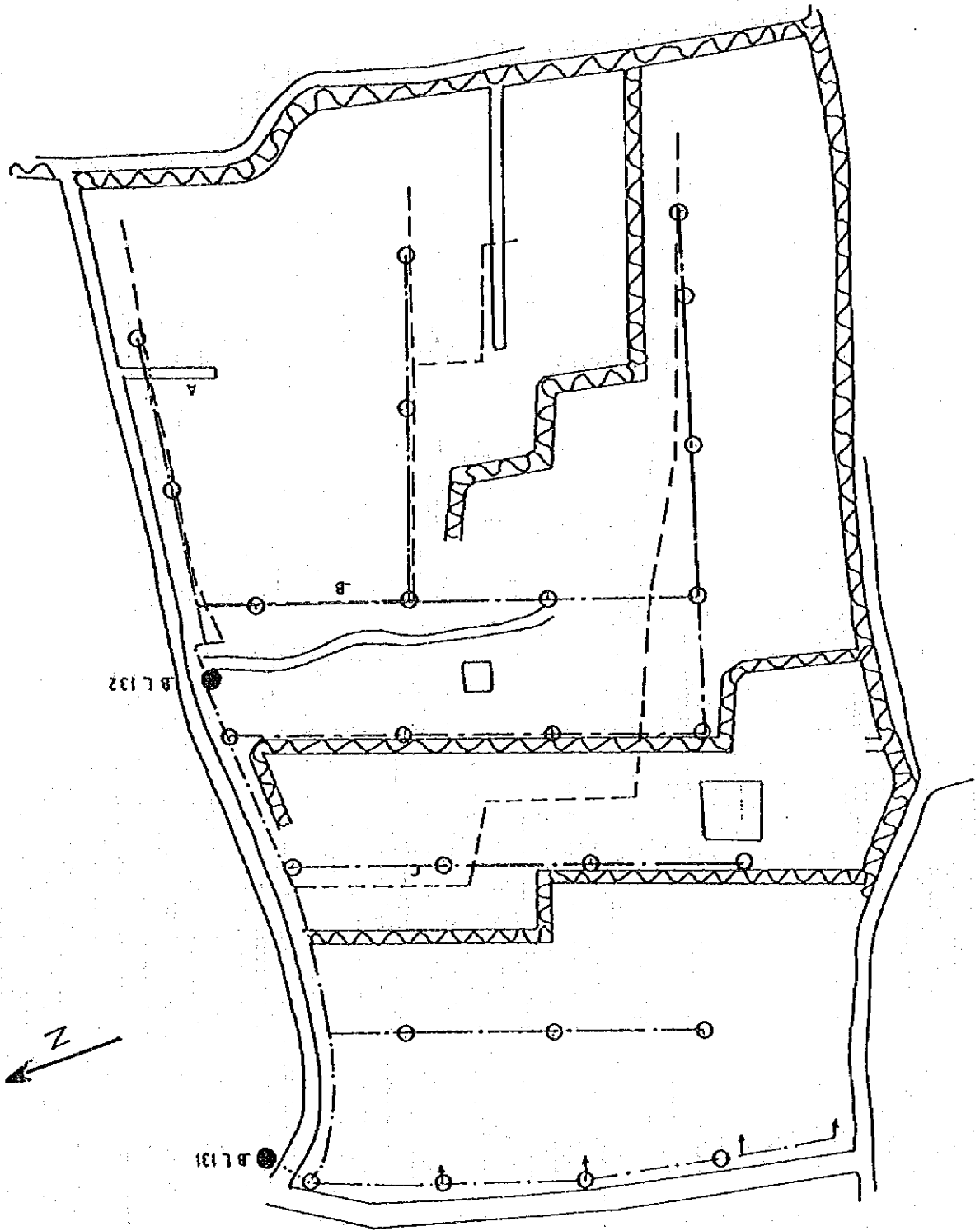
# NEFTA (2)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	5.972 ha
Irrig canal	0.191 ha
Drain canal	0.321 ha
Road	0.075 ha
Others	0.000 ha
Net area	5.385 ha
Ratio	0.900

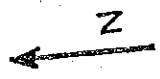
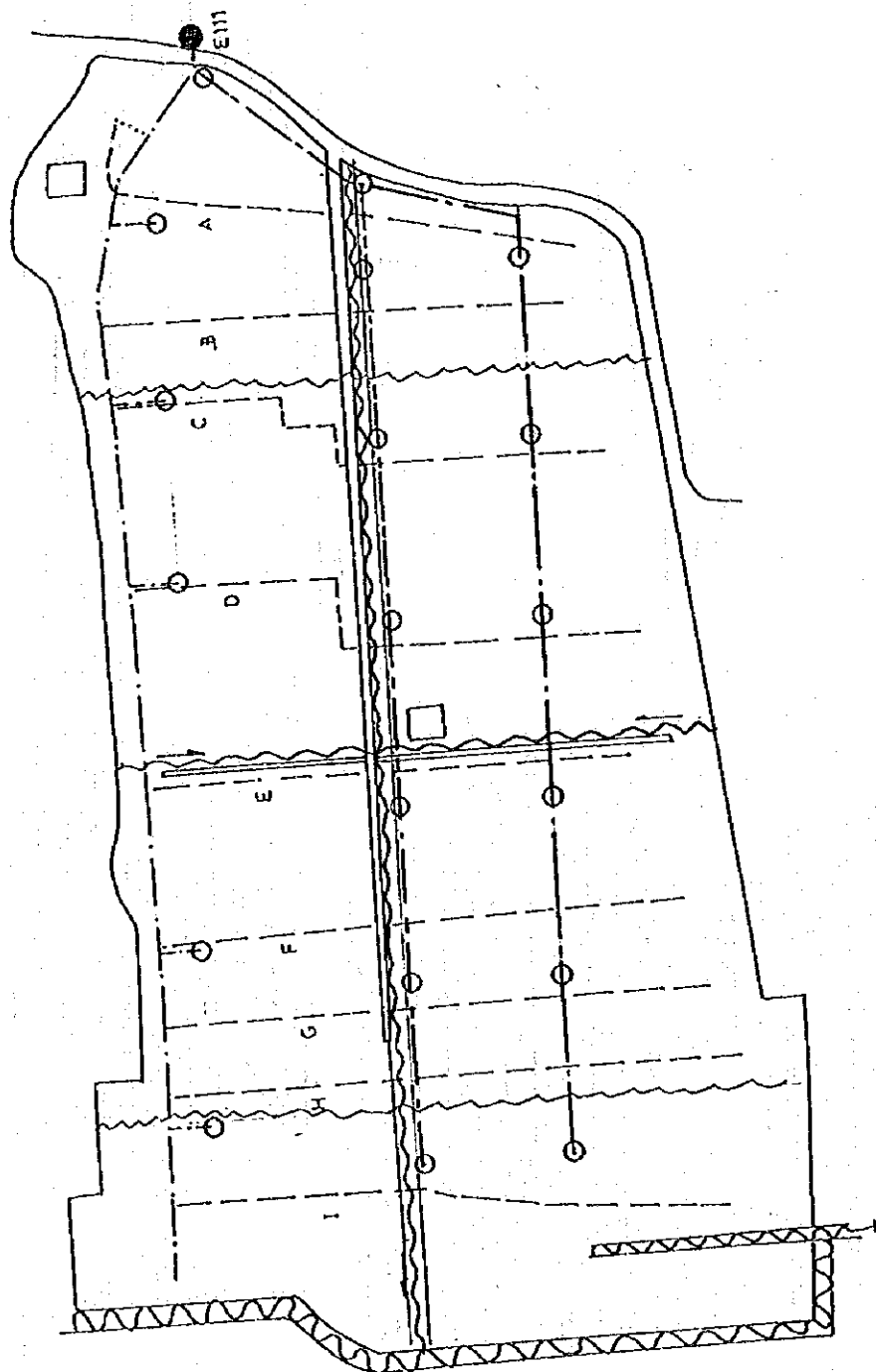
NEFTA (3)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	8.384 ha
Irrig canal	0.191 ha
Drain canal	0.380 ha
Road	0.302 ha
Others	0.050 ha
Net area	7.462 ha
Ratio	0.890

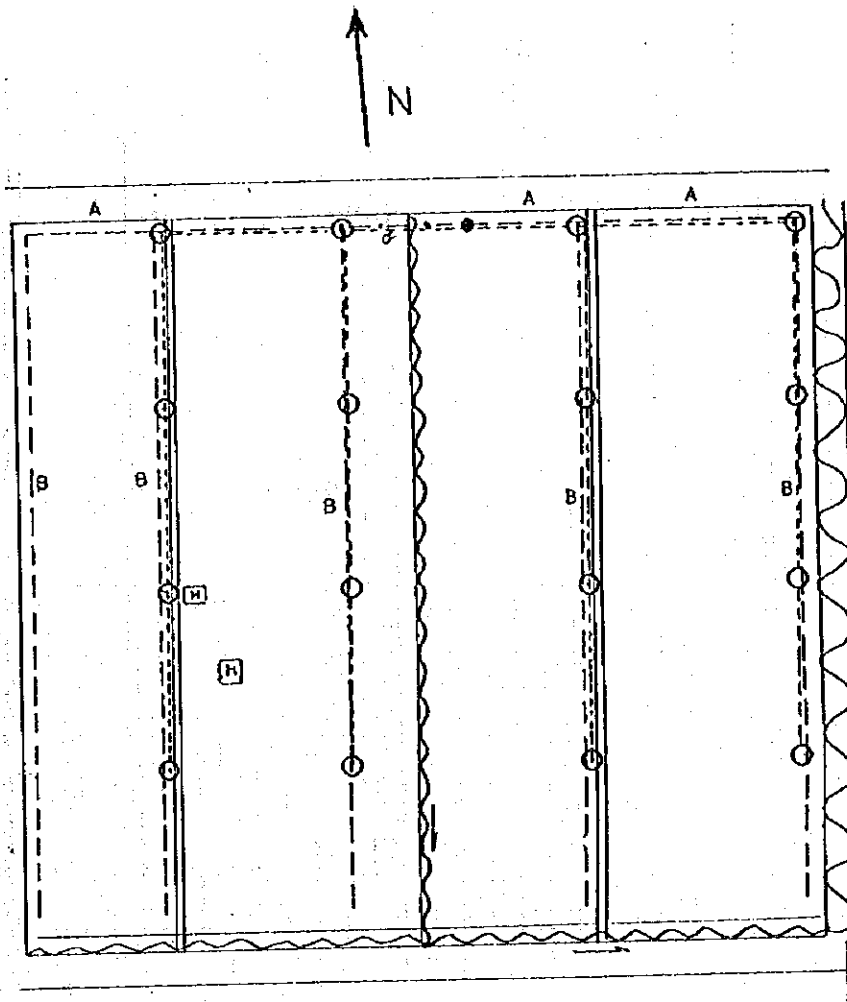
# NEFTA (4)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	6.280 ha
Irrig canal	0.273 ha
Drain canal	0.067 ha
Road	0.156 ha
Others	0.018 ha
Net area	5.766 ha
Ratio	0.920

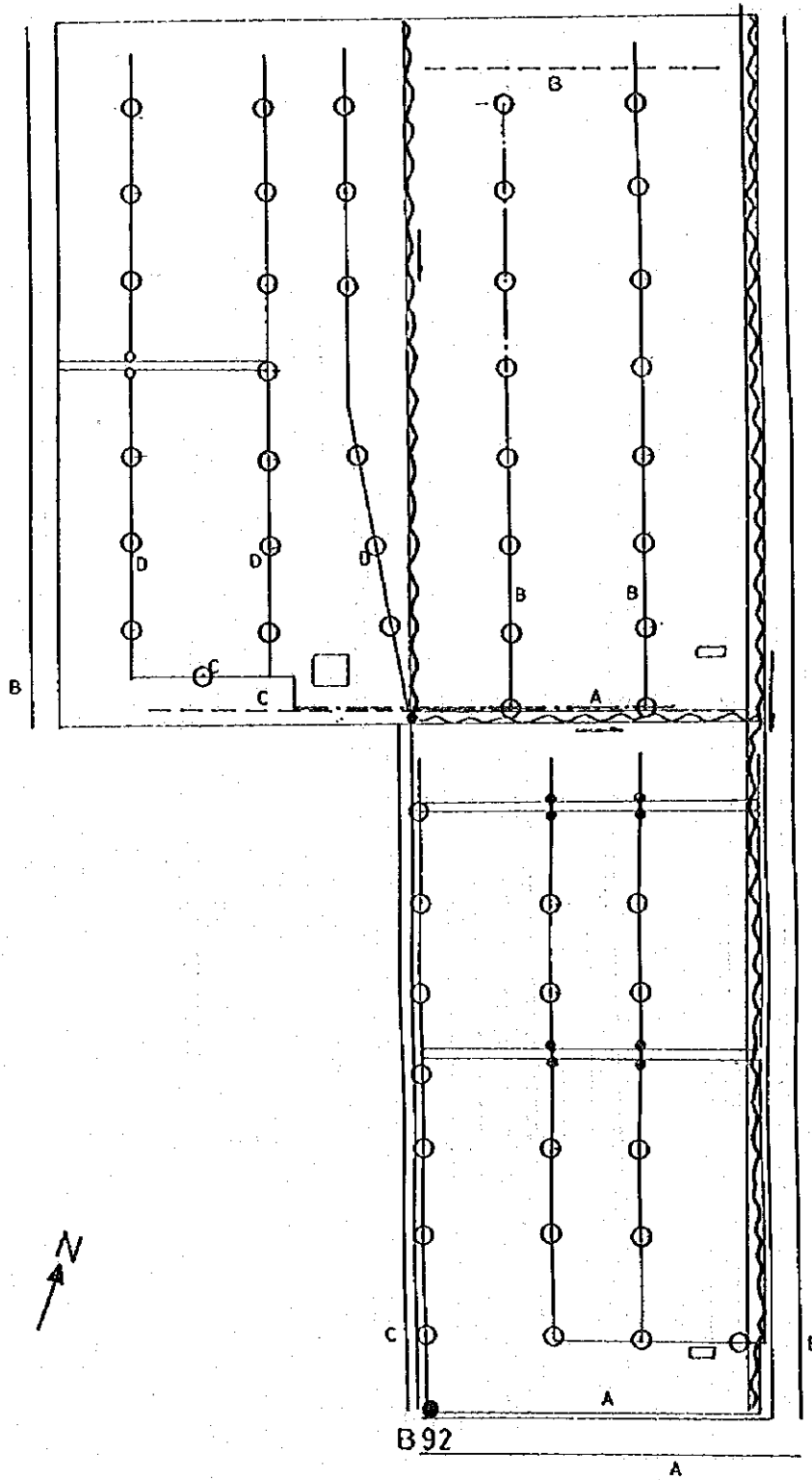
GHARDGAYA



LEGEND	
●	Hydrant
○	Turn-out
- - - - -	Concrete Canal
· · · · ·	Pipe Line
- · - · -	Earth Canal
~~~~~	Drainage Canal

Gross area	4.725 ha
Irig canal	0.142 ha
Drain canal	0.045 ha
Road	0.320 ha
Others	0.006 ha
Net area	4.212 ha
Ratio	0.890

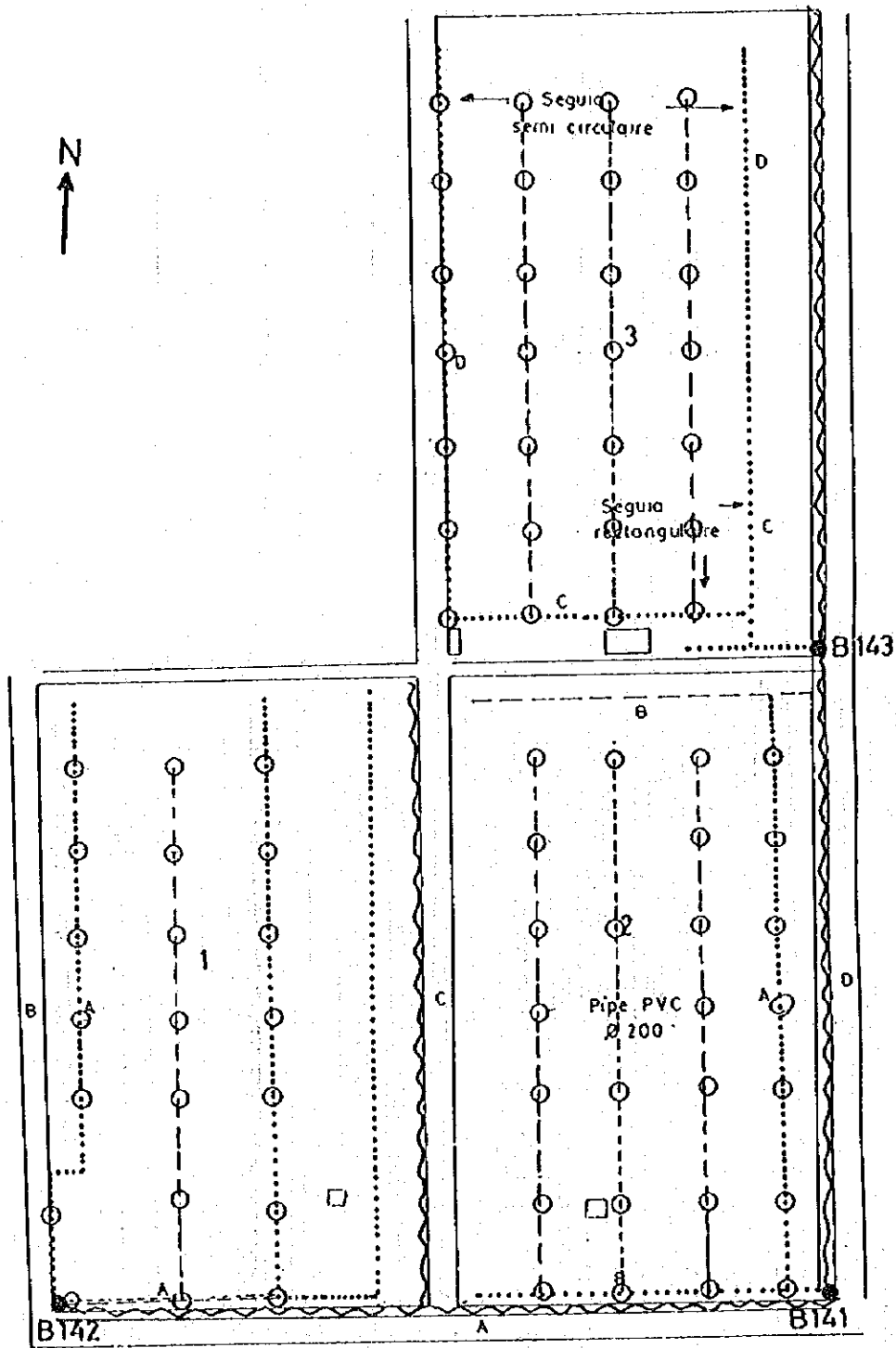
# IBN CHABBAT 1



LEGEND	
●	Hydrant
○	Turn-out
.....	Concrete Canal
.....	Pipe Line
- - -	Earth Canal
~~~~~	Drainage Canal

Gross area	6.810 ha
Irig canal	0.120 ha
Drain canal	0.000 ha
Road	0.335 ha
Others	0.096 ha
Net area	6.259 ha
Ratio	0.920

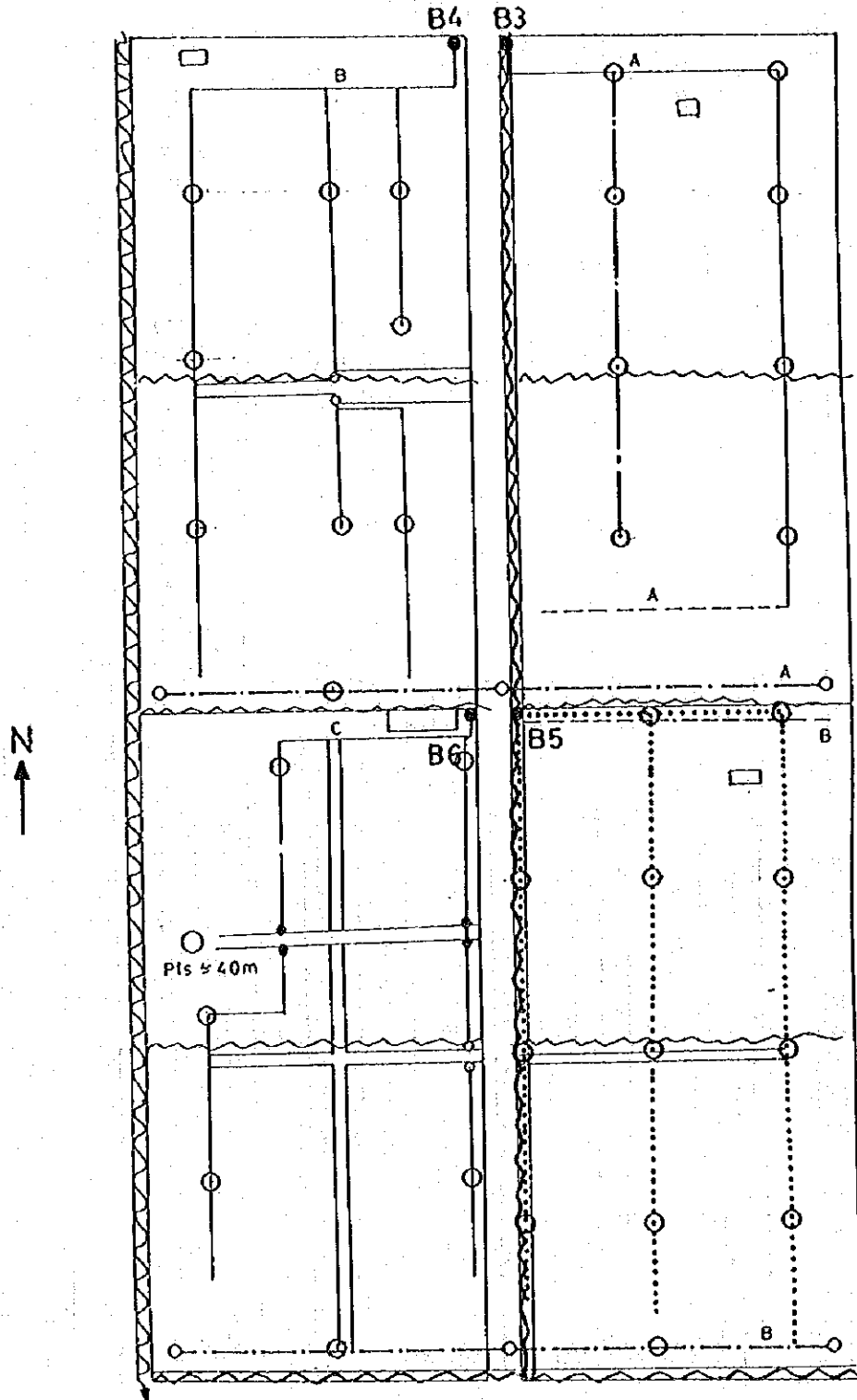
IBN CHABBAT 2



LEGEND	
●	Hydrant
○	Turn-out
- - - - -	Concrete Canal
- · - · -	Pipe Line
- - -	Earth Canal
~ ~ ~	Drainage Canal

Gross area	7.470 ha
Irrig canal	0.084 ha
Drain canal	0.000 ha
Road	0.296 ha
Others	0.082 ha
Net area	7.007 ha
Ratio	0.940

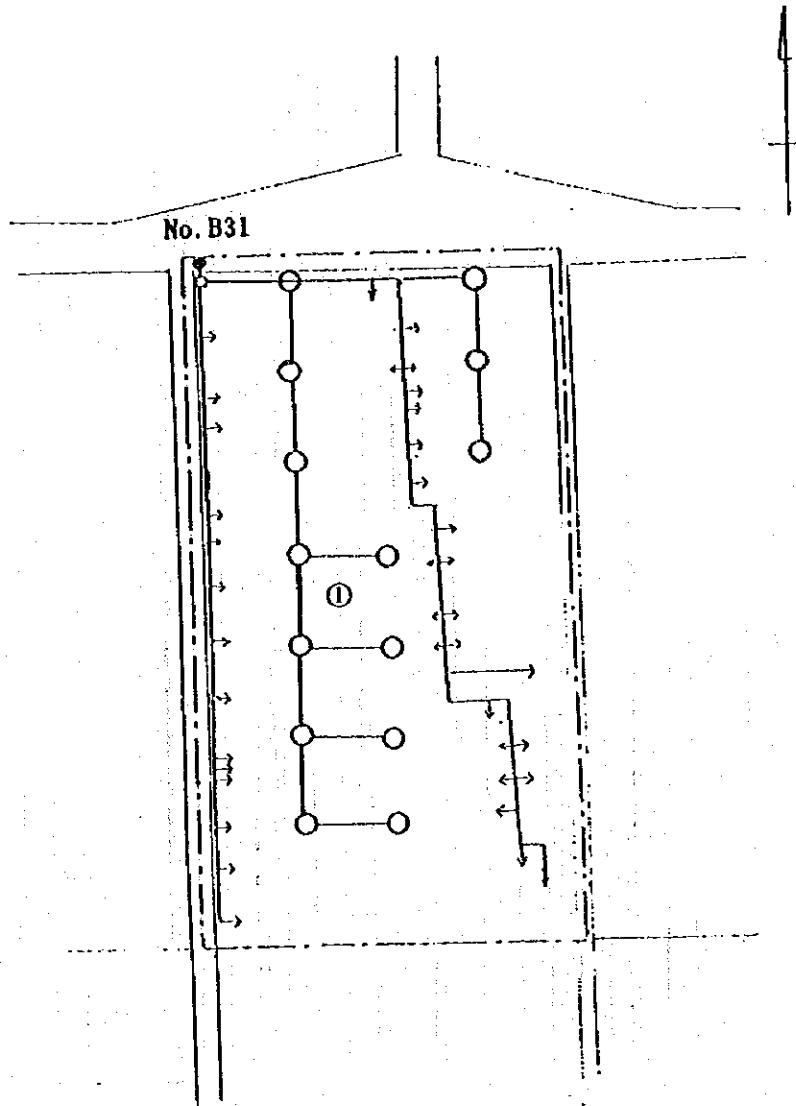
DRAA SUD (1)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
— — — —	Earth Canal
~~~~~	Drainage Canal

Gross area	8.800 ha
Irrig canal	0.091 ha
Drain canal	0.140 ha
Road	0.400 ha
Others	0.193 ha
Net area	7.976 ha
Ratio	0.910

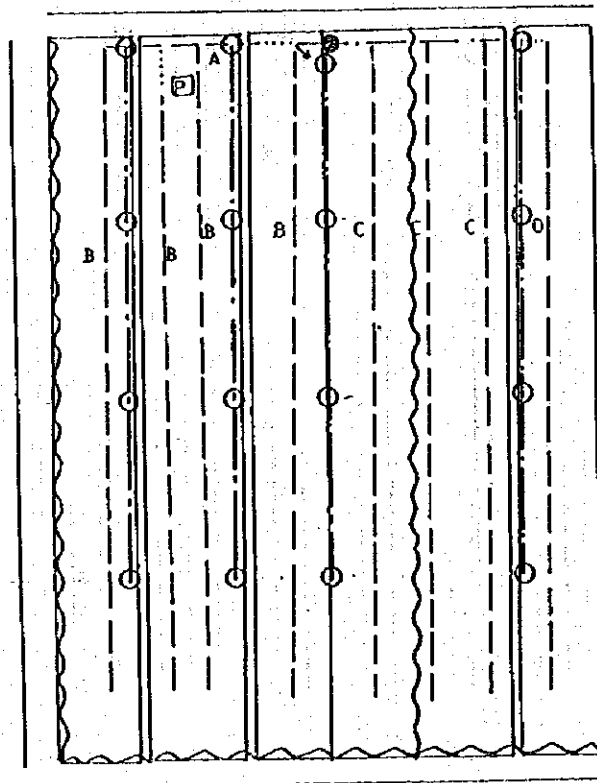
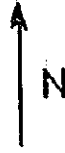
# DRAA SUD (2)



LEGEND	
●	Hydrand
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	2.000 ha
Irrig canal	0.050 ha
Drain canal	0.000 ha
Road	0.120 ha
Others	0.000 ha
Net area	1.830 ha
Ratio	0.920

HAZOUA 1 (1)

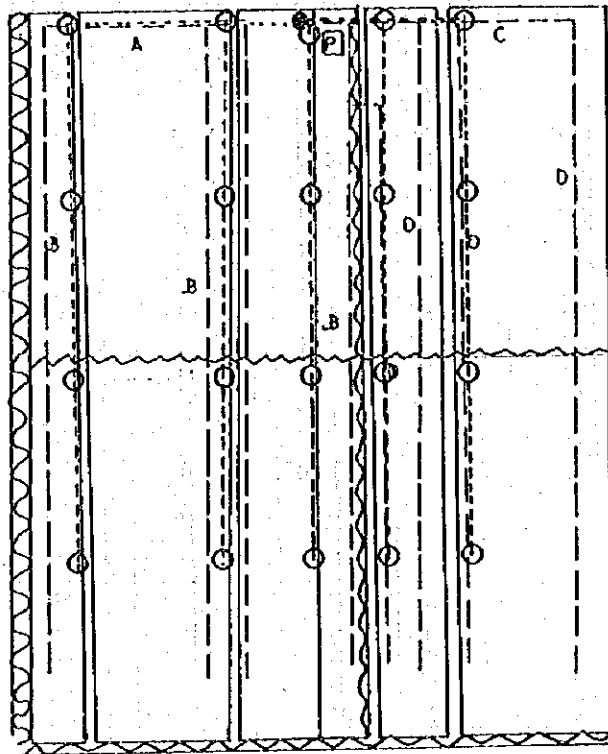
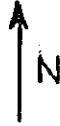


LEGEND	
●	Hydrant
○	Turn-out
----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	3.180 ha
Irig canal	0.309 ha
Drain canal	0.000 ha
Road	0.345 ha
Others	0.002 ha
Net area	2.524 ha
Ratio	0.790



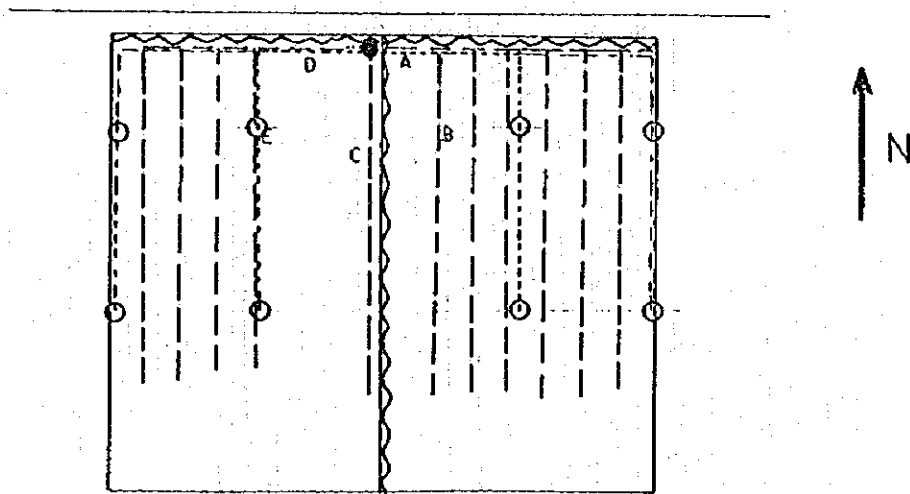
# HAZOUA 1 (2)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	3.465 ha
Irig canal	0.366 ha
Drain canal	0.050 ha
Road	0.320 ha
Others	0.005 ha
Net area	2.724 ha
Ratio	0.790

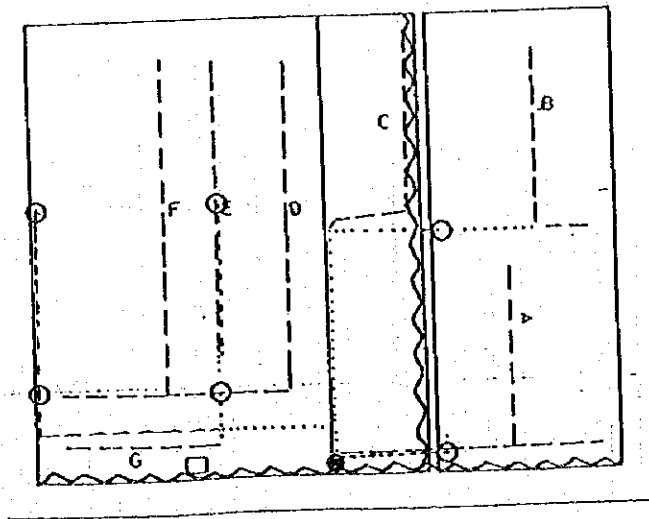
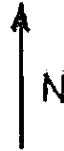
HAZOUA 2 (1)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	1.950 ha
Irrig canal	0.219 ha
Drain canal	0.000 ha
Road	0.013 ha
Others	0.000 ha
Net area	1.719 ha
Ratio	0.880

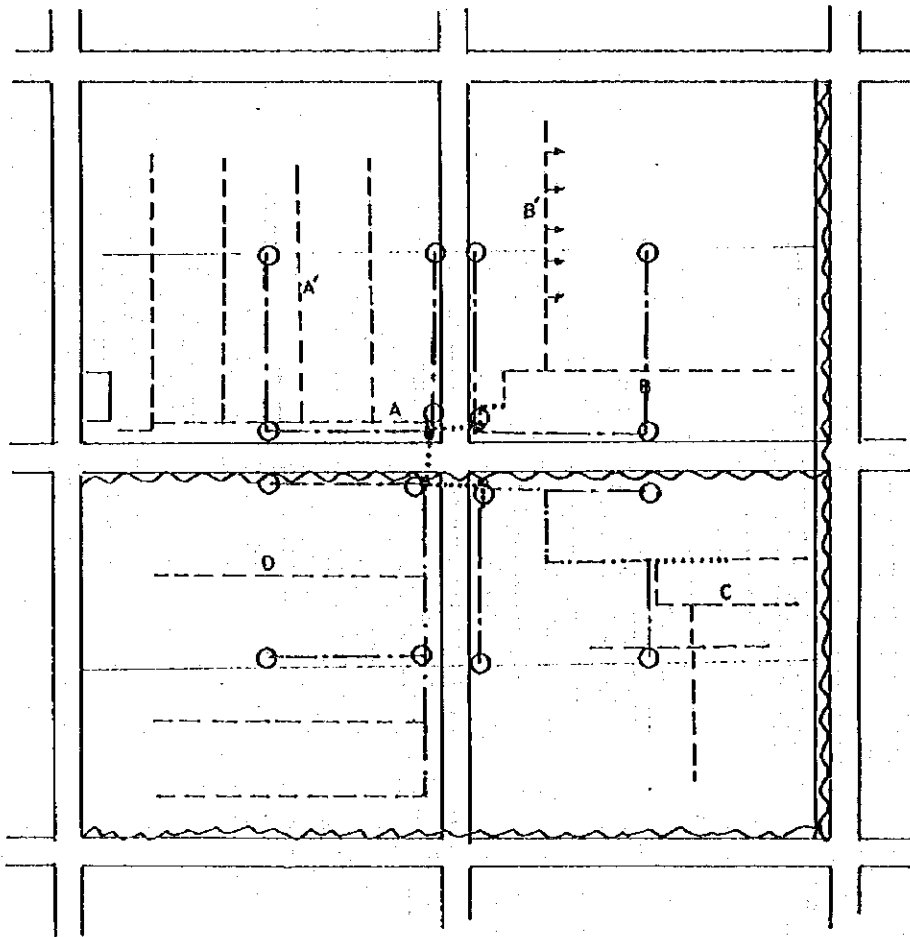
# HAZOUA 2 (2)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	2.080 ha
Irig canal	0.149 ha
Drain canal	0.000 ha
Road	0.048 ha
Others	0.000 ha
Net area	1.883 ha
Ratio	0.910

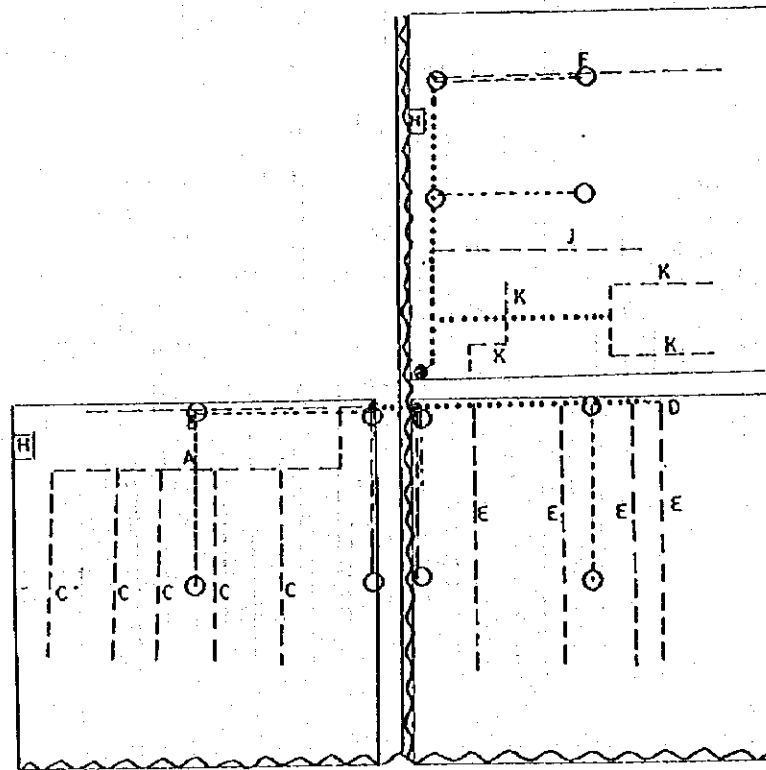
HAZOUA 3 (1)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	4.666 ha
Irig canal	0.189 ha
Drain canal	0.000 ha
Road	0.126 ha
Others	0.011 ha
Net area	4.340 ha
Ratio	0.930

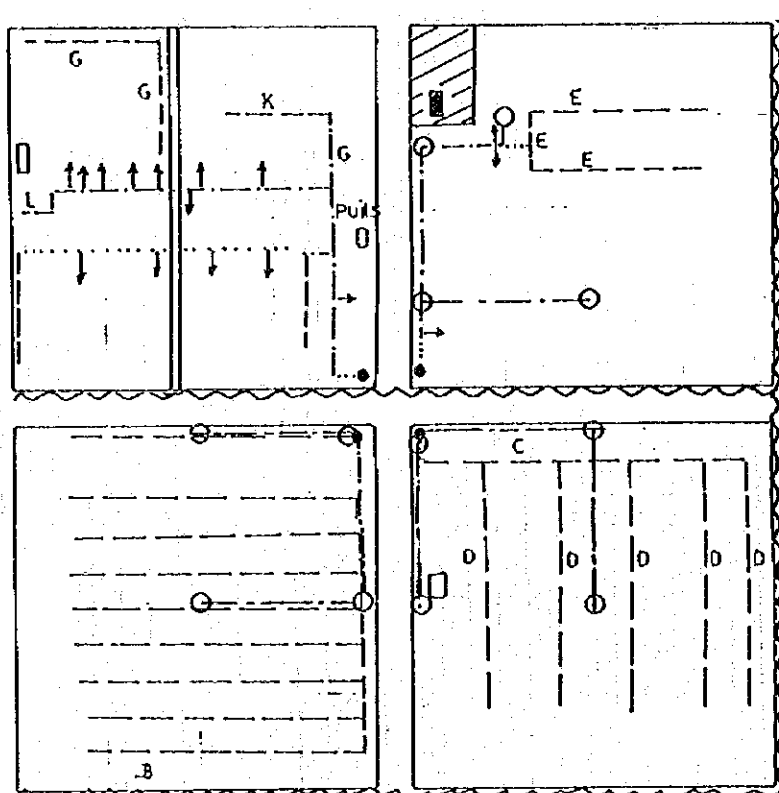
# HAZOUA 3 (2)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	4.160 ha
Irrig canal	0.205 ha
Drain canal	0.000 ha
Road	0.160 ha
Others	0.006 ha
Net area	3.790 ha
Ratio	0.910

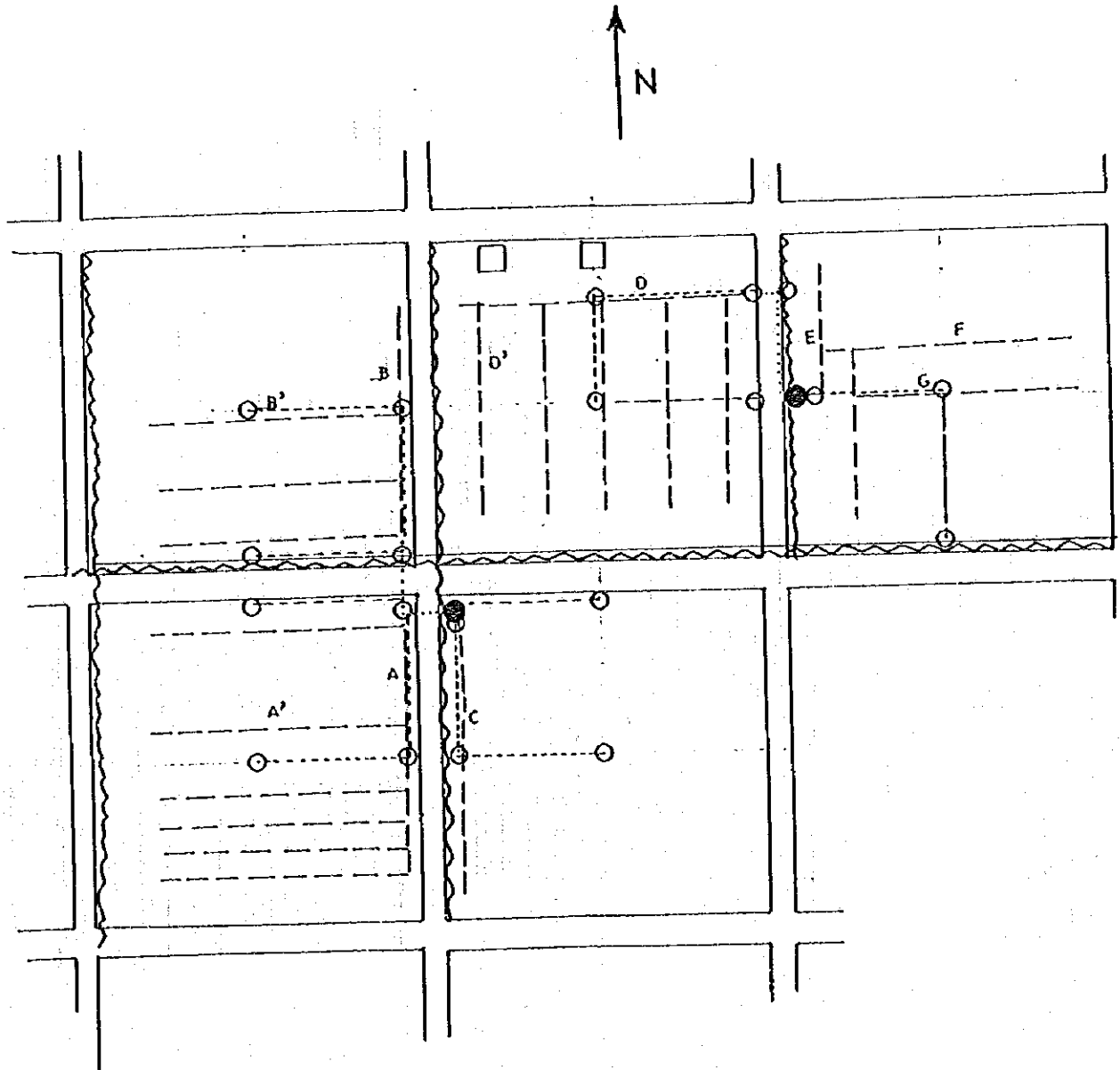
HAZOUA 3 (3)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	4.410 ha
Irrig canal	0.236 ha
Drain canal	0.000 ha
Road	0.400 ha
Others	0.059 ha
Net area	3.715 ha
Ratio	0.840

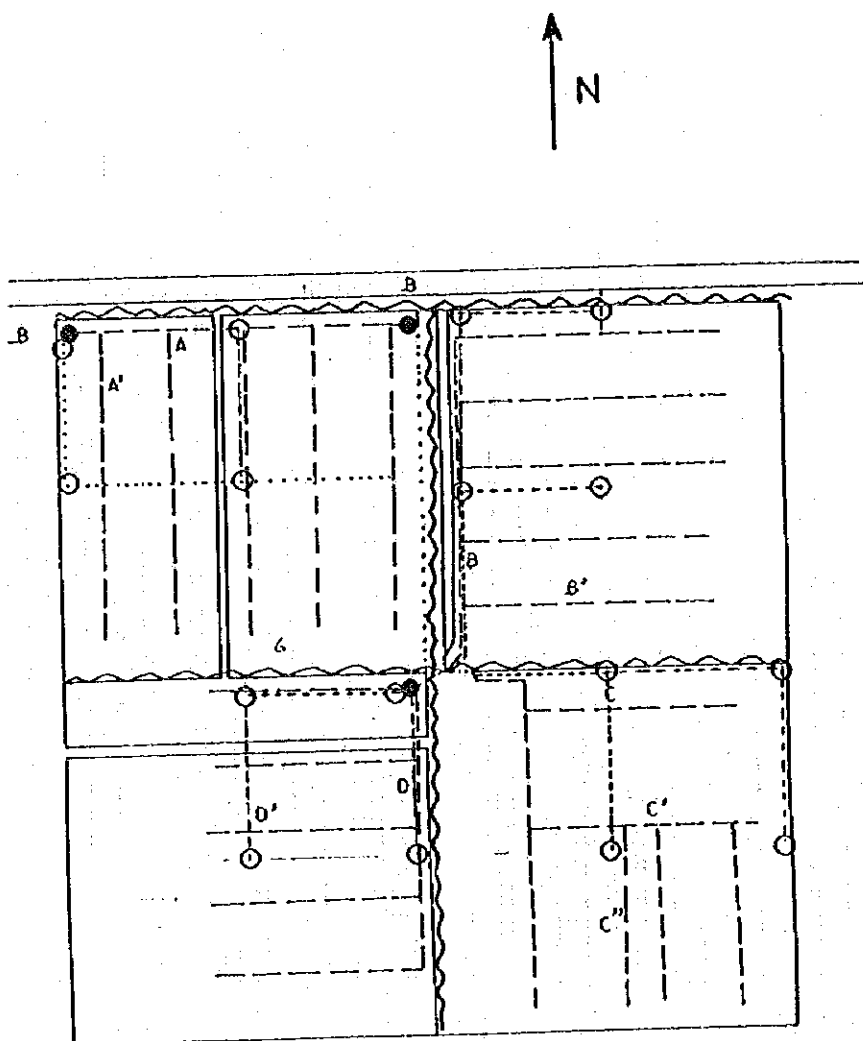
# HAZOUA 3 (4)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	6.114 ha
Irrig canal	0.288 ha
Drain canal	0.000 ha
Road	0.855 ha
Others	0.013 ha
Net area	4.958 ha
Ratio	0.810

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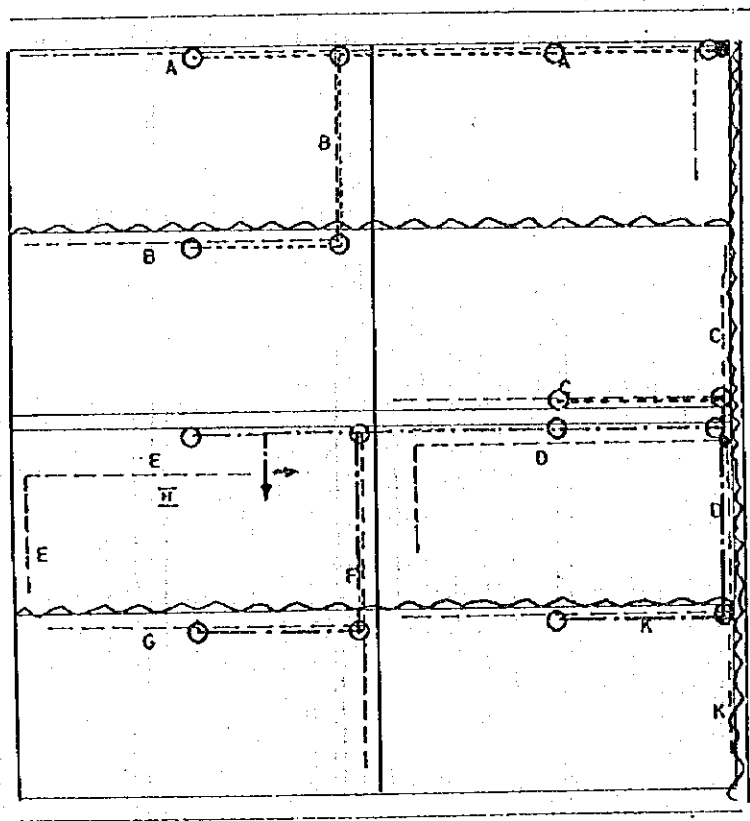


LEGEND	
●	Hydrant
○	Turn-out
- - - - -	Concrete Canal
.	Pipe Line
- - - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	4.100 ha
Irig canal	0.255 ha
Drain canal	0.000 ha
Road	0.180 ha
Others	0.000 ha
Net area	3.665 ha
Ratio	0.890



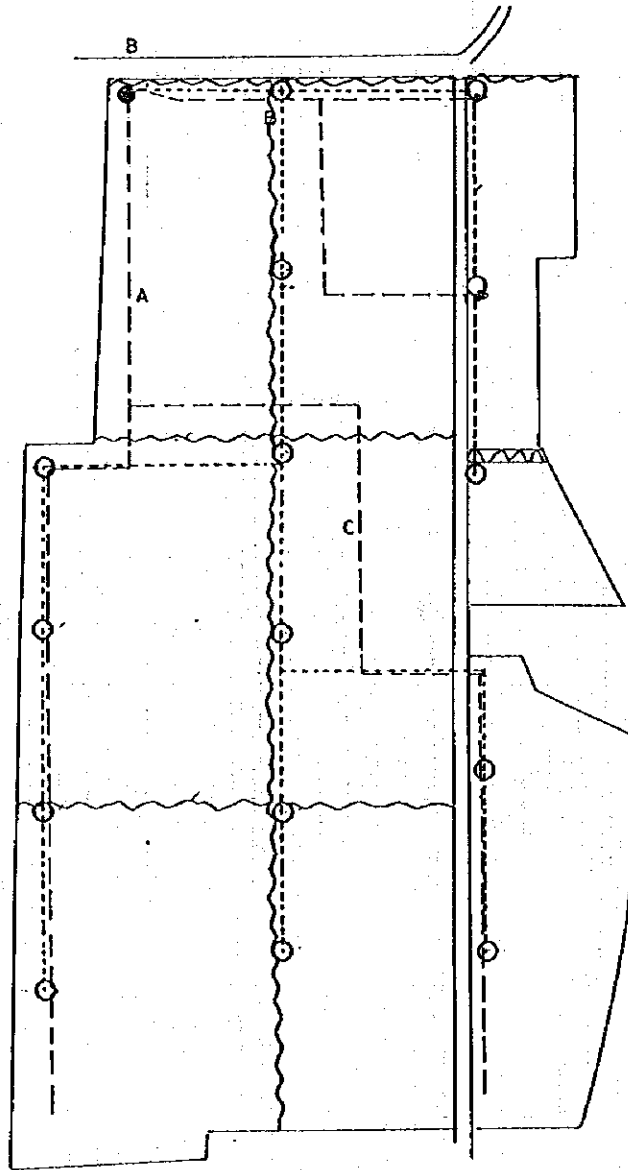
# TAZRARIT



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
-----	Pipe Line
-----	Earth Canal
~~~~~	Drainage Canal

Gross area	4.344 ha
Irrig canal	0.193 ha
Drain canal	0.000 ha
Road	0.340 ha
Others	0.002 ha
Net area	3.809 ha
Ratio	0.880

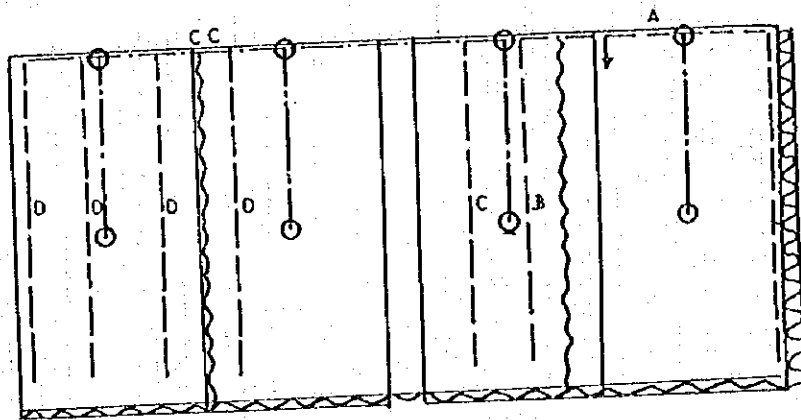
CEDADA



LEGEND	
●	Hydrant
○	Turn-out
- - - - -	Concrete Canal
.	Pipe Line
- - - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	4.252 ha
Irig canal	0.145 ha
Drain canal	7E-04 ha
Road	0.117 ha
Others	0.000 ha
Net area	3.990 ha
Ratio	0.940

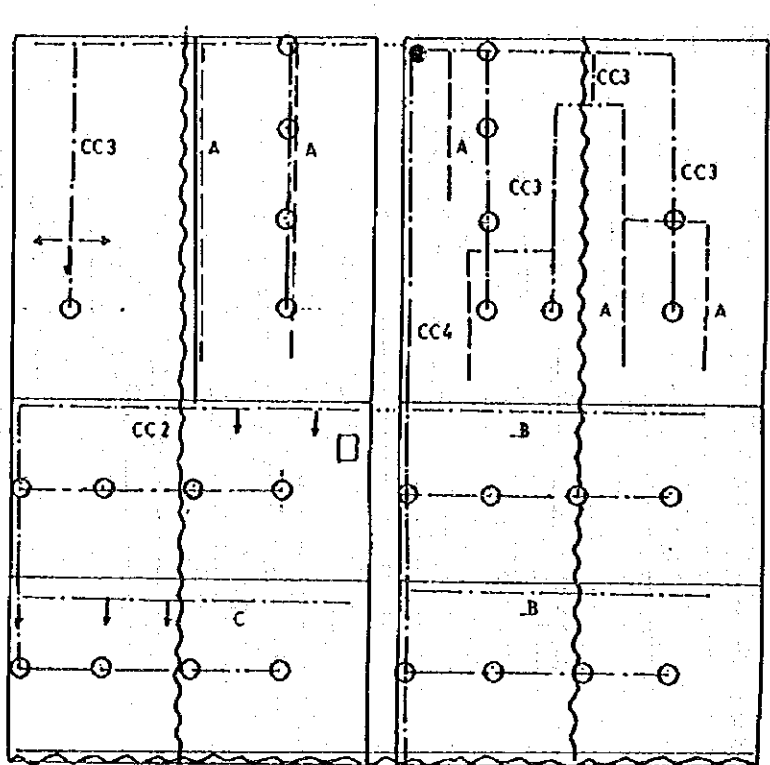
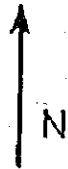
# DGHOUMES (1)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	2.120 ha
Irig canal	0.165 ha
Drain canal	0.025 ha
Road	0.100 ha
Others	0.000 ha
Net area	1.830 ha
Ratio	0.860

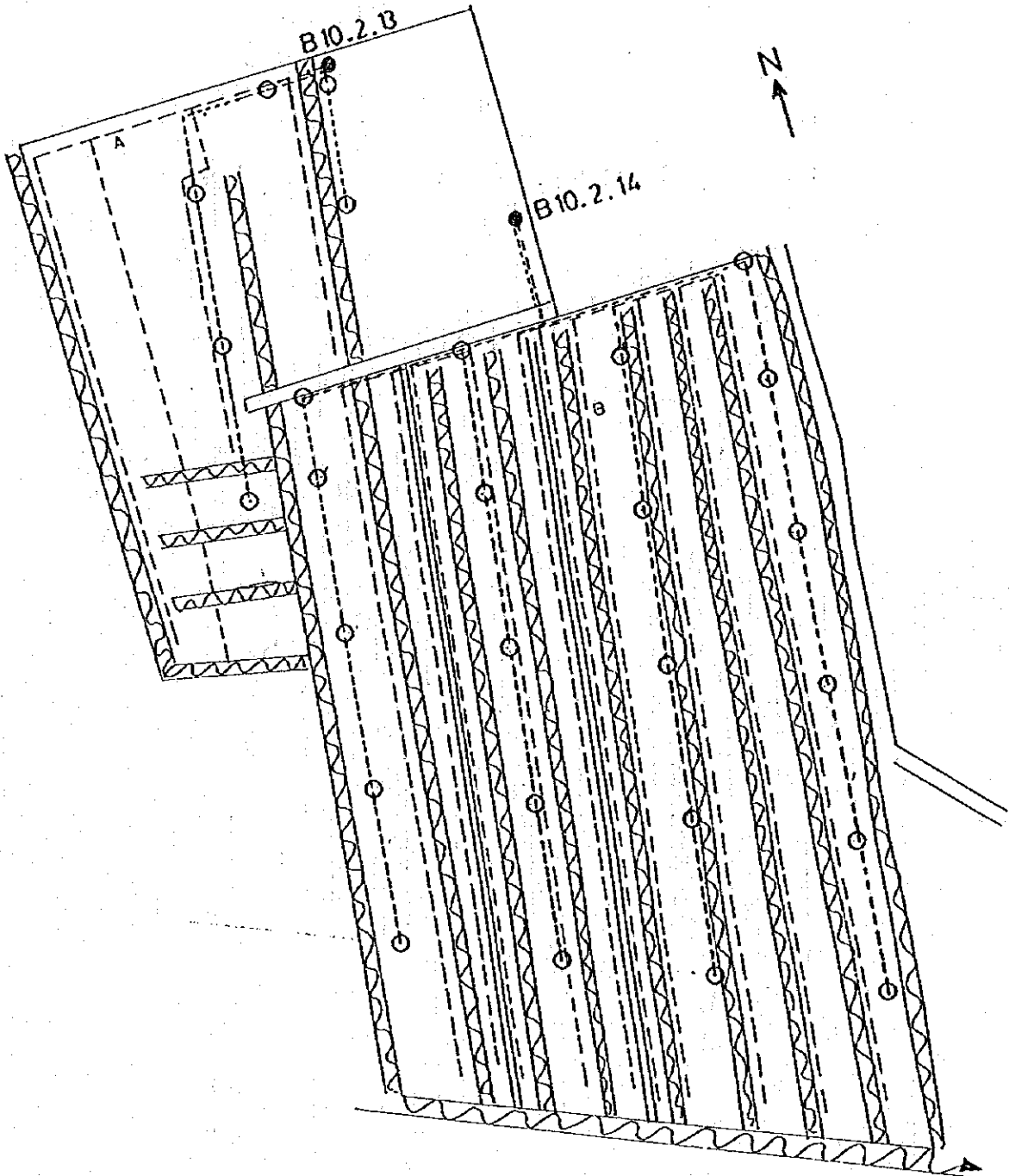
DGHOUMES (2)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	4.200 ha
Irrig canal	0.147 ha
Drain canal	0.000 ha
Road	0.191 ha
Others	0.003 ha
Net area	3.859 ha
Ratio	0.920

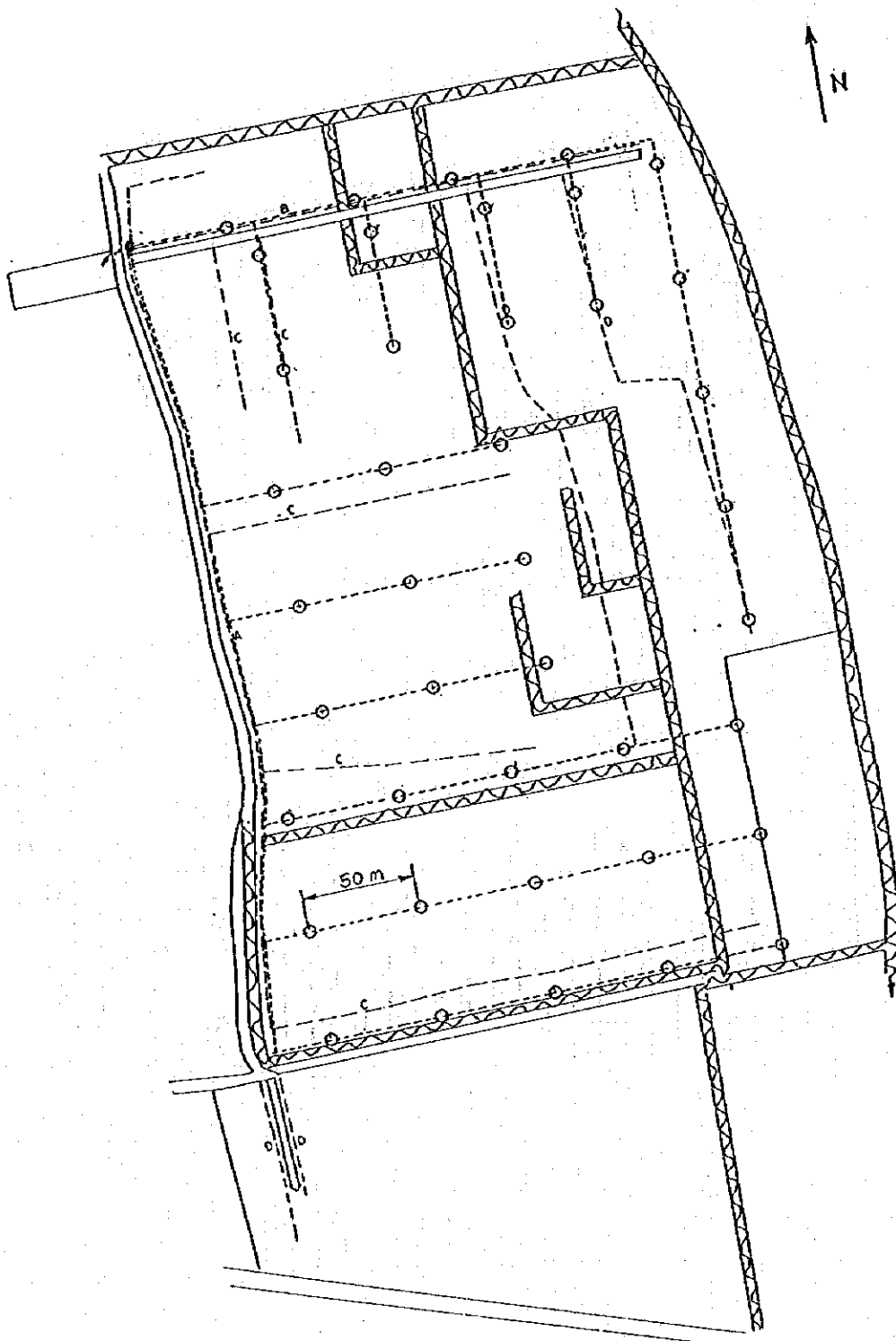
# DEGACHE (1)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
-----	Pipe Line
- - - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	6.452 ha
Irrig canal	0.691 ha
Drain canal	0.847 ha
Road	0.093 ha
Others	0.000 ha
Net area	4.821 ha
Ratio	0.750

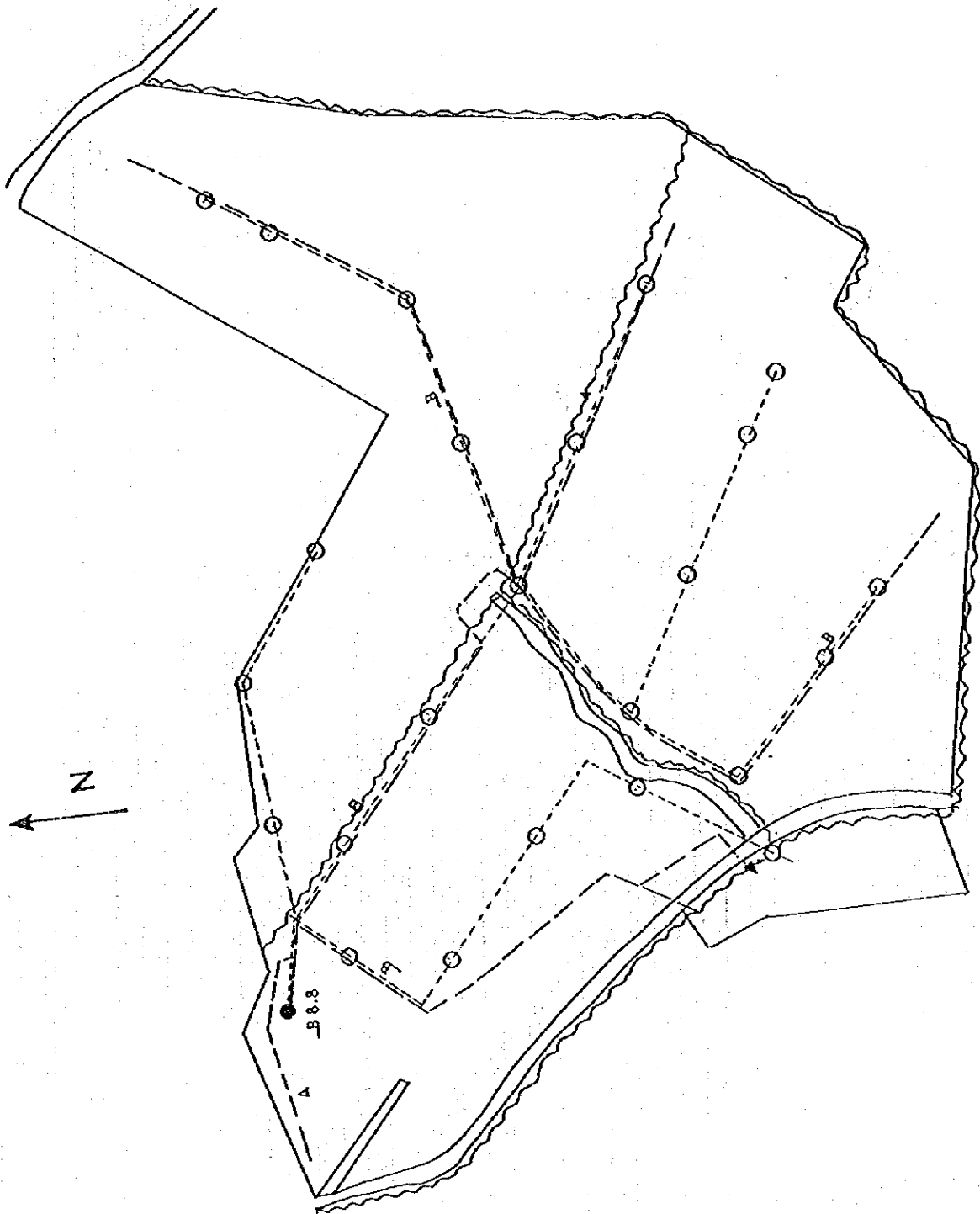
DEGACHE (2)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	13.200 ha
Irig canal	0.525 ha
Drain canal	0.649 ha
Road	0.280 ha
Others	0.000 ha
Net area	11.750 ha
Ratio	0.890

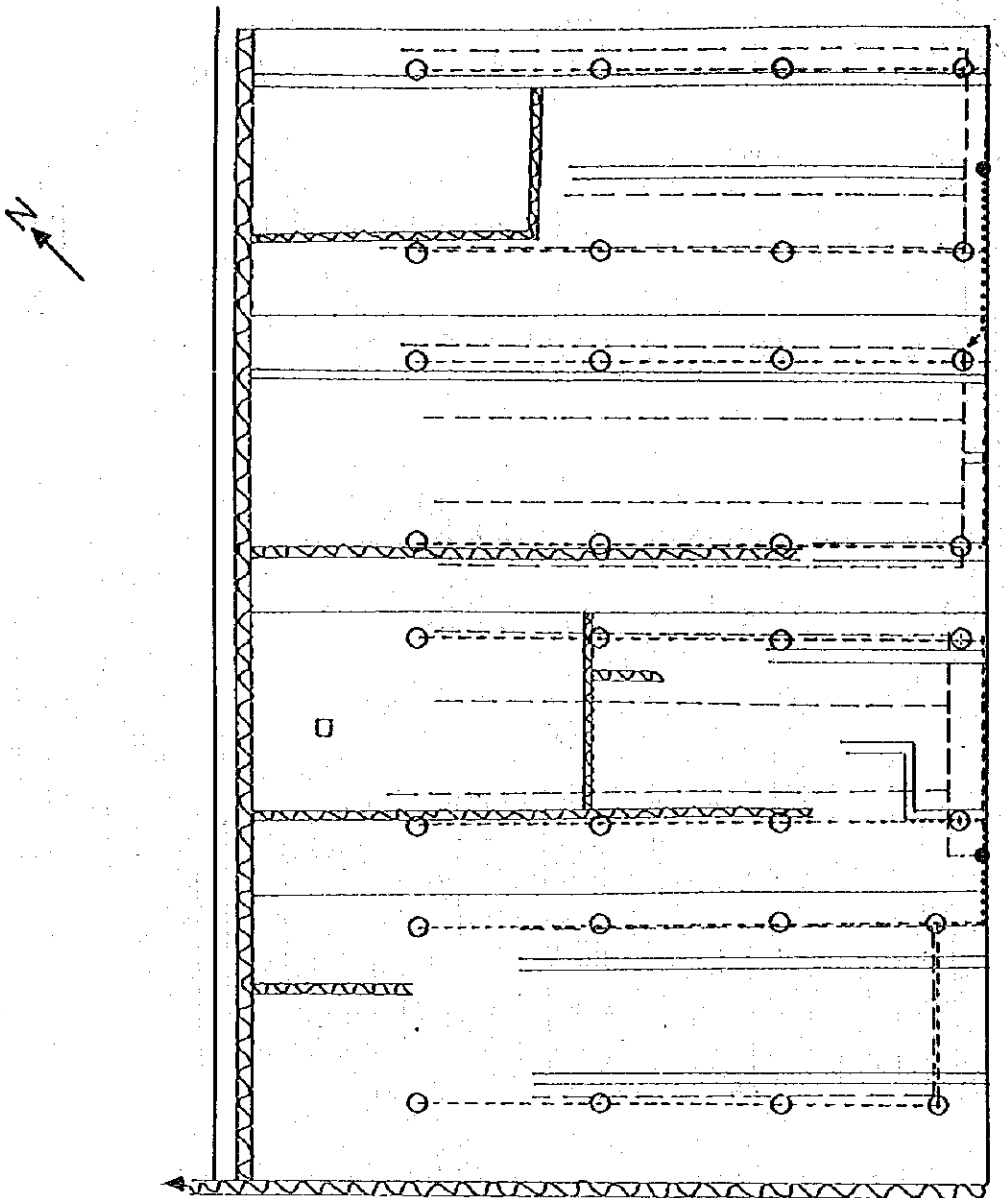
# DEGACHE (3)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	6.848 ha
Irrig canal	0.214 ha
Drain canal	0.000 ha
Road	0.149 ha
Others	0.000 ha
Net area	6.485 ha
Ratio	0.950

CHAKMOU

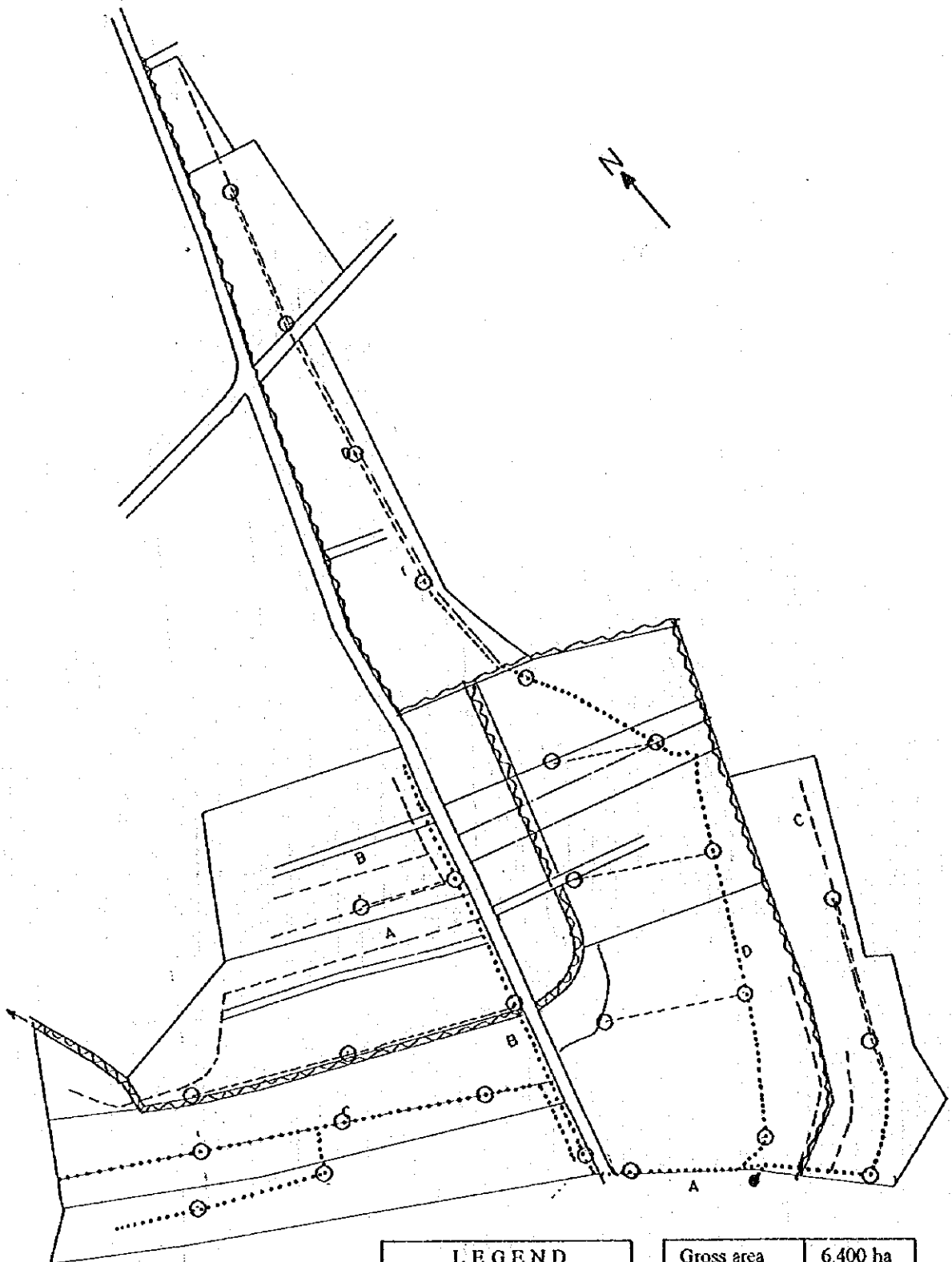


LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
-----	Pipe Line
-----	Earth Canal
~~~~~	Drainage Canal

Gross area	7.700 ha
Inrig canal	0.267 ha
Drain canal	0.322 ha
Road	0.221 ha
Others	0.285 ha
Net area	6.605 ha
Ratio	0.860



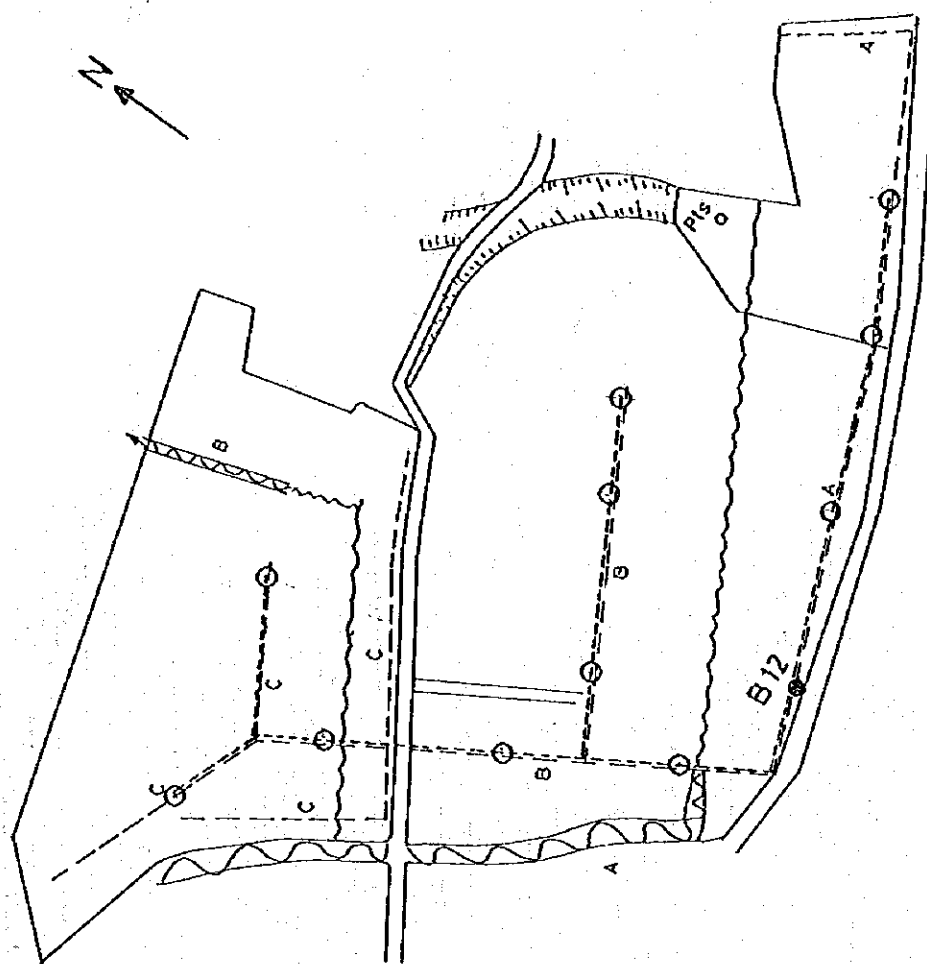
# EL HAMMA (1)



LEGEND	
●	Hydrant
○	Turn-out
----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	6.400 ha
Irrig canal	0.135 ha
Drain canal	0.071 ha
Road	0.147 ha
Others	0.049 ha
Net area	5.999 ha
Ratio	0.940

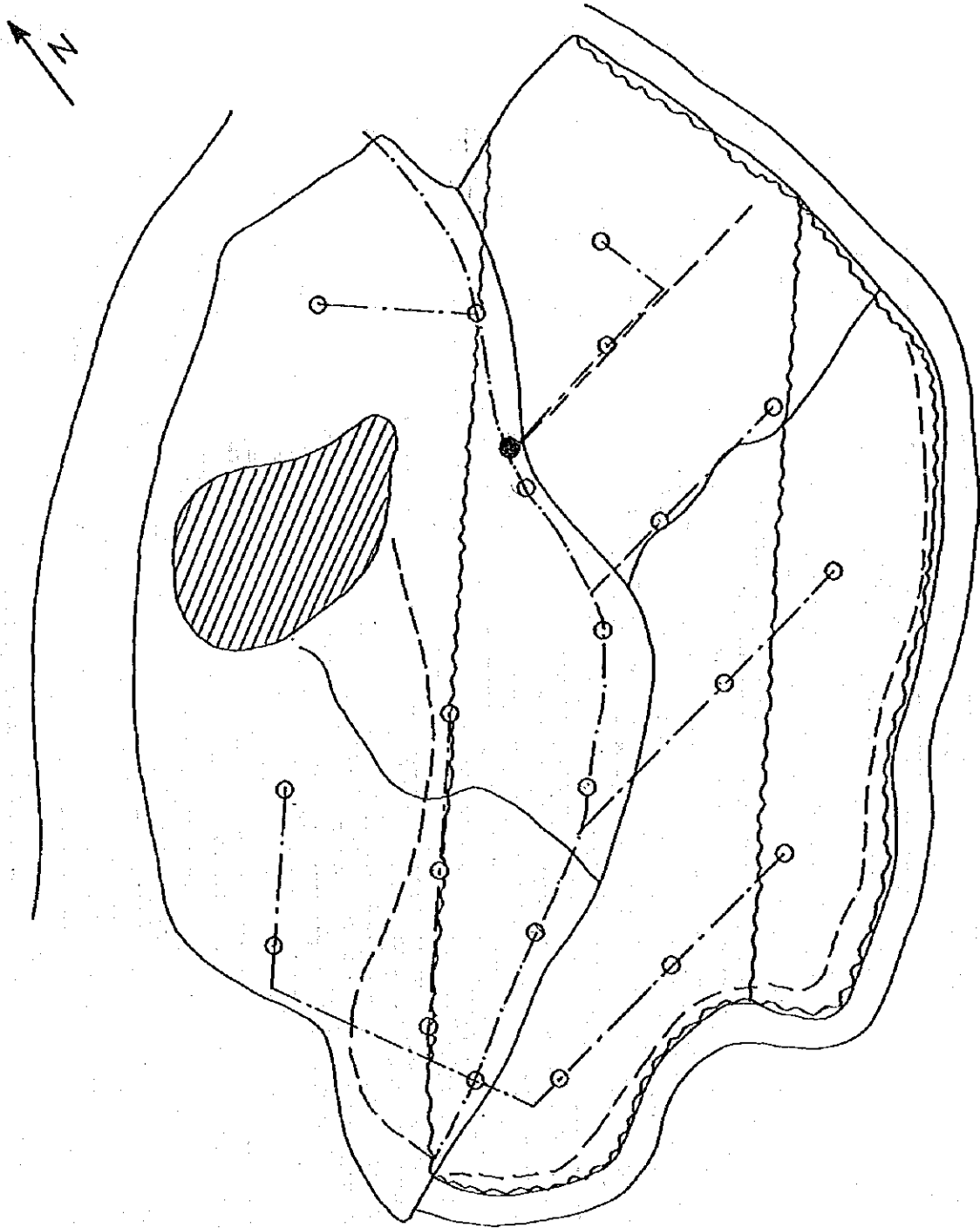
EL HAMMA (2)



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	3.500 ha
Irig canal	0.119 ha
Drain canal	0.040 ha
Road	0.212 ha
Others	0.048 ha
Net area	3.081 ha
Ratio	0.880

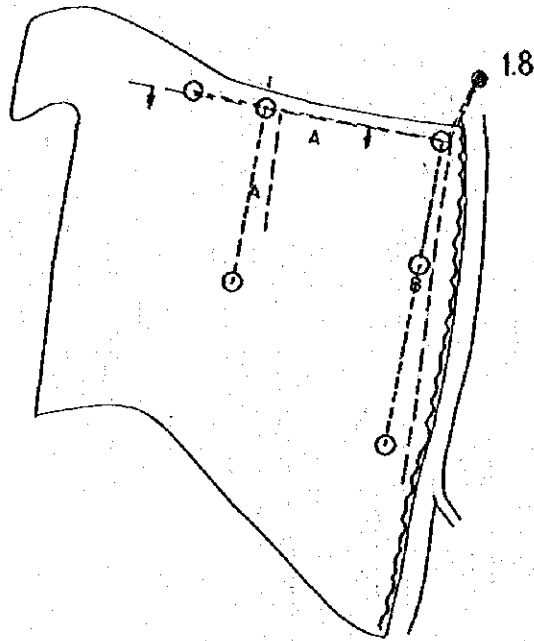
# TAMERZA



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	6.680 ha
Irrig canal	0.198 ha
Drain canal	0.000 ha
Road	0.000 ha
Others	0.000 ha
Net area	6.482 ha
Ratio	0.970

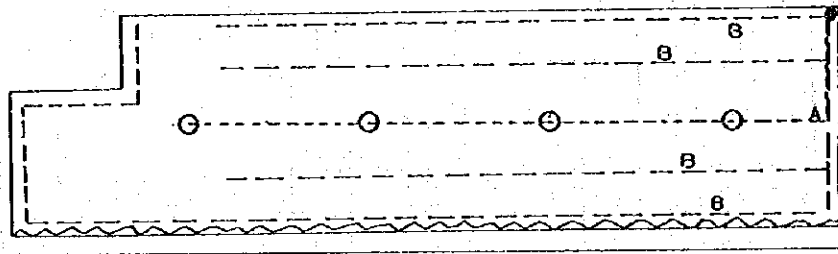
CHEBIKA



LEGEND	
●	Hydrand
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	1.384 ha
Irrig canal	0.097 ha
Drain canal	0.000 ha
Road	0.045 ha
Others	0.000 ha
Net area	1.242 ha
Ratio	0.900

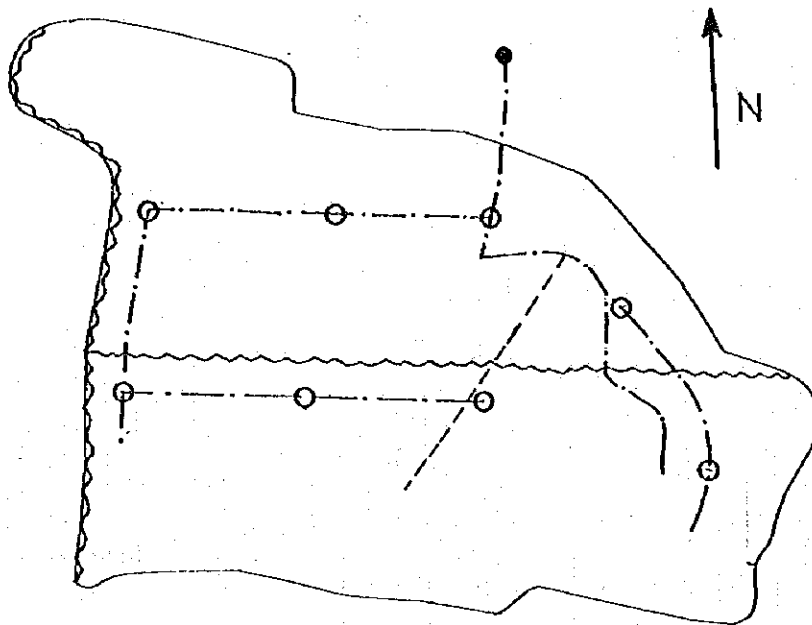
# FOUM EL KHANGA



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	1.376 ha
Irig canal	0.194 ha
Drain canal	0.000 ha
Road	0.068 ha
Others	0.000 ha
Net area	1.113 ha
Ratio	0.810

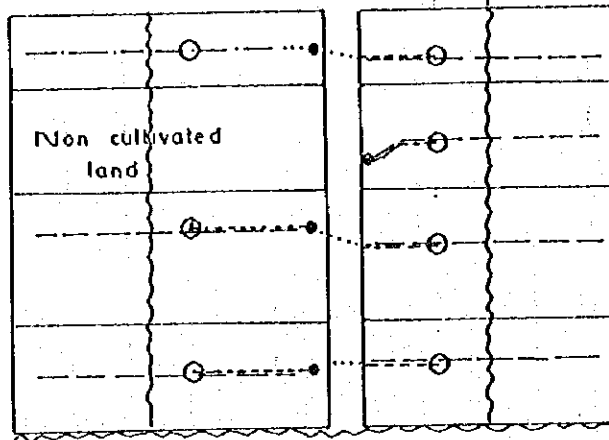
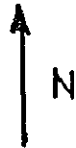
MIDES



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	2.500 ha
Inrig canal	0.033 ha
Drain canal	0.000 ha
Road	0.000 ha
Others	0.000 ha
Net area	2.568 ha
Ratio	0.990

# AIN EL KARMA



LEGEND	
●	Hydrant
○	Turn-out
-----	Concrete Canal
.....	Pipe Line
- - - - -	Earth Canal
~~~~~	Drainage Canal

Gross area	1.909 ha
Irrig canal	0.058 ha
Drain canal	0.000 ha
Road	0.025 ha
Others	0.020 ha
Net area	1.806 ha
Ratio	0.950